



MASSEY-HARRIS

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THE ROYAL PARTY IN THE CANADIAN NORTH WEST

STONE LIMITED

Carded

The EDITH *and* LORNE PIERCE
COLLECTION *of* CANADIANA



Queen's University at Kingston

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THE DUKE OF CONNAUGHT



Field-Marshal His Royal Highness the Duke of Connaught and Strathearn, P.C., K.G., K.T., K.P., G.C.B., G.C.S.I., G.C.M.G., G.C.I.E., G.C.V.O., was born May 1st, 1858. He was educated at the Royal Military Academy, Woolwich, and Oxford, receiving the degree of D.C.L.

He entered the army as Lieutenant R.E., June 1868 and rose through the various ranks to that of Field-Marshal, 1902.

That he is no mere dress parade soldier is clearly shown by the record he has made when on active service in the various parts of the Empire, winning a number of medals and being often mentioned in despatches. He served during the Fenian Raid in Canada in 1870 (medal with clasp); commanded the 1st Guards Brigade in Egyptian Expeditionary Force, 1882, when he was thrice mentioned in despatches besides receiving various other honors.

Subsequently he held various commands in Great Britain, Bengal, Bombay, and in the Mediterranean. In 1910 he opened, on behalf of the King, the first Parliament of the Union of South Africa.

His appointment as Governor-General of Canada dated from January 30th, 1911, the appointment being most acceptable to the people of Canada. His broad experience has been of great benefit in the administration of affairs.

During the present crisis his military experience in particular has been especially valuable in connection with Canada's preparation of men for the front.

The Duke of Connaught was married March 13th, 1879, to the Princess Louise of Prussia and has one son and two daughters: (1) Margaret Victoria, born January 15th, 1882, married June 15th, 1905, to Prince Gustavus Adolphus of Sweden; (2) Arthur, born June 13th, 1883, married Alexandria Victoria, Duchess of Fife, October 15th, 1913; (3) Patricia, born March 17th, 1886.



INTRODUCTORY



OUR contests have not been waged and our victories have not been won on the battle lines of destruction and death, but on the abounding fields of grass and grain in every agricultural country in the world.

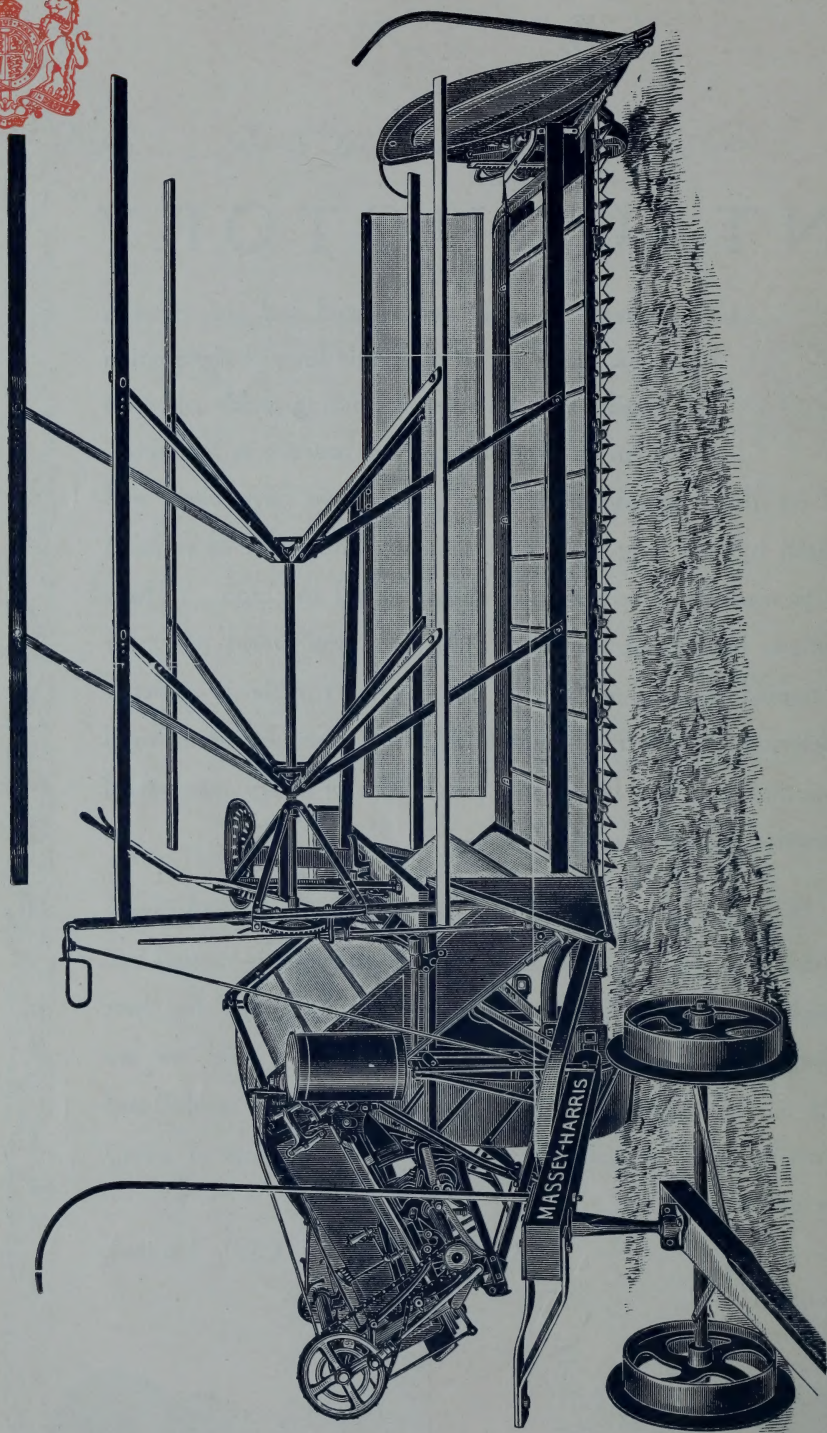
And for these contests and these victories we have been well prepared by our long experience in the manufacture of farming tools to meet any and every condition of soil and crop. These conditions have been studied on the spot, the world over, by our trained Experts who have not spared trouble or expense in determining the requirements of each particular agricultural community and the limits and possibilities of every mechanical or practical demand.

Wherever ground is plowed or cultivated, or seed sown, or grass and grain harvested, or where dairying is carried on, or feed prepared for stock, there you will find that the best implements are always the "Massey-Harris." And we are proud of this reputation which has been won by careful and persistent efforts to meet the needs of our customers of every clime and nationality.

MASSEY-HARRIS CO., Limited.

Toronto, Canada.





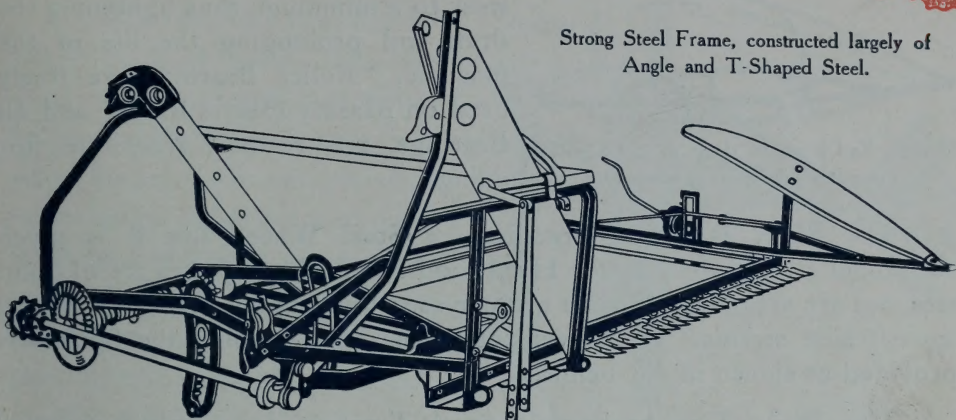
MASSEY-HARRIS 8-Ft. BINDER WITH FORECARRIAGE.

Forecarriage as shown above is regularly furnished on all 8-ft. Binders; can also be furnished with the other sizes when ordered or can be supplied for Binders previously sold.

Massey-Harris New No. 5 Binder



Strong Steel Frame, constructed largely of
Angle and T-Shaped Steel.



The Massey-Harris is not the result of any one man's experience, but of many men in many countries under all sorts of conditions of land and crop. This combined experience of our expert fieldmen has been incorporated into this Binder by our trained designers and pattern-makers, so that the very best results have been obtained by the use of the highest grade materials, put together with mechanical skill and scientific exactness.

The Frame of the Massey-Harris is the very embodiment of strength. Angle Steel and T-shaped Steel—of high carbon and great toughness—enter largely into its construction and at no part will be found any sign of weakness.

Wherever possible the truss principle is employed, good examples being in the double truss Main Frame and the Platform end. In no other way can strength and lightness be combined so well as by the truss principle of construction.

Self-Aligning Bearings are used at points where ordinary Bearings would be apt to cause unnecessary friction. By automatically conforming to the shaft at all times, these improved Bearings reduce friction and

THE BRITISH EMPIRE.

THE BRITISH EMPIRE CONSISTS OF:—

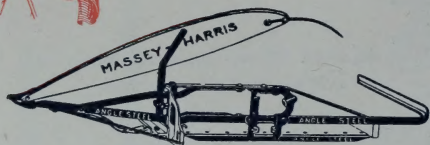
1. The United Kingdom of Great Britain and Ireland.
2. India, the Colonies, Protectorates and Dependencies.

The present Ruler is George V., born June 3rd, 1865, son of King Edward VII and Queen Alexandra, eldest daughter of King Christian IX of Denmark; married July 6th, 1893, to Victoria Mary, daughter of the late





Massey-Harris New No. 5 Binder



Platform End is in the shape of a Truss—The strongest possible form of construction.

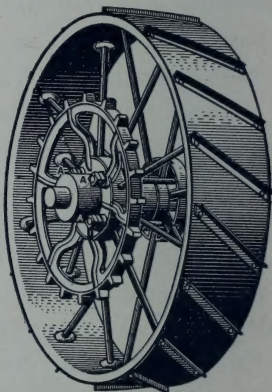
wear to a minimum, thus lightening the draft and prolonging the life of the machine. Roller Bearings are freely used on Massey-Harris Binder and all Bearings are readily accessible for oiling.

The Main Wheel is practically a Steel Wheel, but it is given additional strength by a heavy Hardwood Rim. The Spokes are of good size and are staggered in such manner as to thoroughly brace the Wheel against side strains. A convenient means of tightening the Spokes is provided as shown in cut below.

The Wide Tire has ample Steel Traction Lugs which prevent slipping in heavy cutting or when the ground is soft and wet. Power is transmitted from the Main Wheel by means of a heavy Sprocket Chain, kept at the proper tension by means of an Automatic Tightener Roller.

The Crank Shaft is driven by Bevel Gears, which are held in mesh by a Ball Bearing which can be adjusted by simply turning a set screw to take up any slackness on these Gears. The Elevators are driven by a Chain which runs on the outside of all Sprockets.

The Outer Divider raises fallen grain so that it is readily cut and finds its way to the Elevators and then to the Binding mechanism. Both the Outside and Inside Dividers are perfectly rigid when at work but can be folded in an instant so that the Binder will pass through a narrow gateway when mounted on Transport Truck.



Spokes in Wheels kept tight by simply turning Nuts marked "A" in cut.



Duke of Teck; succeeded to the Crown on the death of his father, May 6th, 1910.

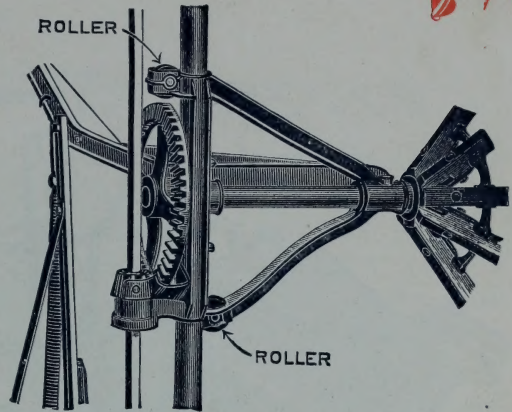
The supreme legislative power of the British Empire is, by its Constitution, given to Parliament. The Parliament is summoned by the writ of the Sovereign issued out of Chancery, by advice of the Privy Council, at least thirty-five days previous to its assembling.

The annual session extends from the middle of February to about the middle of August, or occasionally later.

Massey-Harris New No. 5 Binder

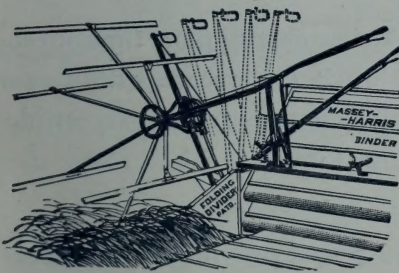


Conditions vary so in nearly every field of grain, that the Reel is a very important point to be considered in the selection of a Binder. It must have a wide range of adjustment and must be convenient to operate, so as to enable the driver to quickly change its position, and thus handle grain in whatever condition it may be found.



Rollers in Reel Yoke prevent friction when raising the Reel.

The Massey-Harris Reel has an exceptionally wide range of adjustments—seventy different positions—and is controlled ENTIRELY BY ONE LEVER. The Reel Yoke is provided with two Rollers, causing it to move freely up and down the Reel Standard and is counterbalanced by a strong Coil Spring.



Reel has a wide range of Adjustments—Seventy different positions—All controlled by one Lever.

In an emergency, the driver can raise the Reel without touching the Hand Latch, or, if the Reel should come in contact with a stump or other obstruction, it can rise automatically to free itself and prevent breakage.

An Adjustable Brace makes it an easy matter to keep the Reel from sagging.

The Parliament is divided into two Houses, the Lords and Commons.

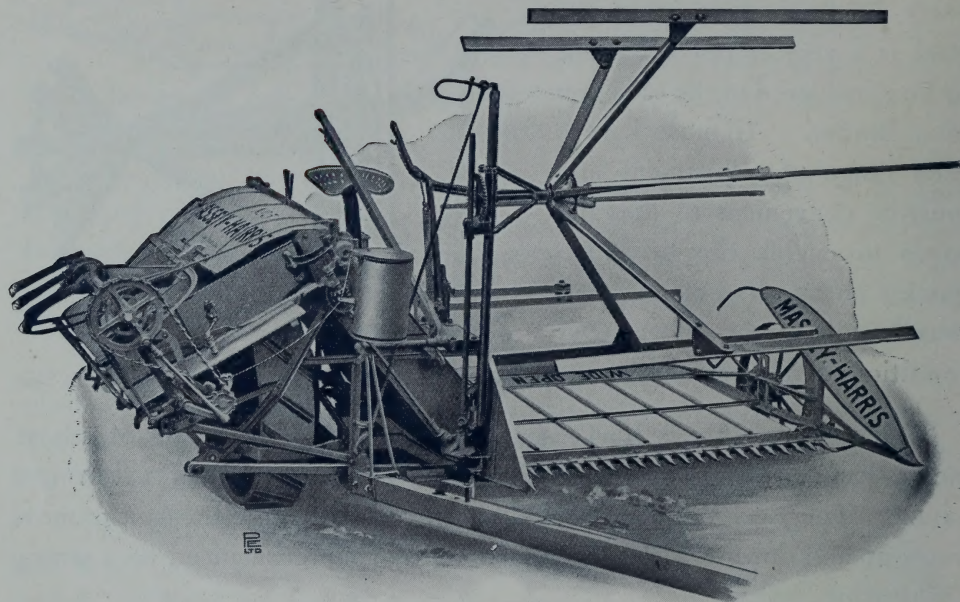
The House of Lords in 1913 consisted of 638 members. The House of Commons consisted of 670 members.

The Executive Government of Great Britain and Ireland is vested nominally in the Crown, but practically in a committee of Ministers commonly called the Cabinet, whose existence is dependent on the possession of a majority in the House of Commons.





Massey-Harris New No. 5 Binder



Not only in the handling of the Reel, but at every point, the convenience of the operator has been considered. All Levers are within easy reach; all adjustments are easily made; oil holes are readily accessible, and the driver can readily see the work being done.

The Reel is Gear driven, the Gears being enclosed in such a manner as to prevent straw or trash becoming entangled and causing delay or breakage.



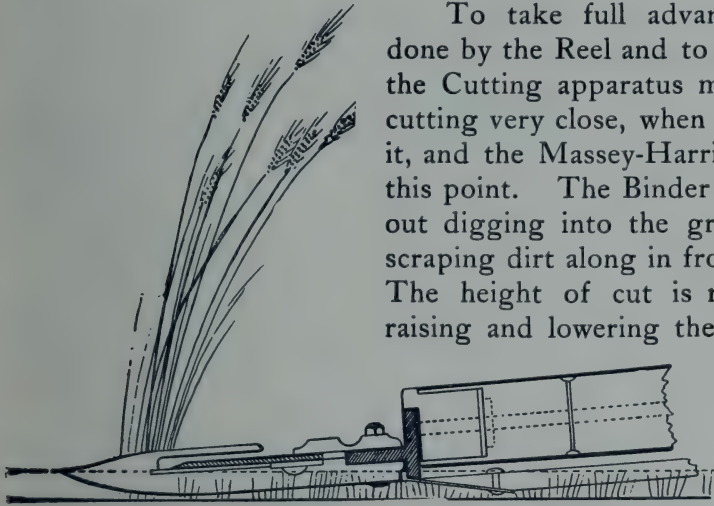
The area and population of the United Kingdom are as follows, the table being from the census of April 2nd, 1911.

DIVISIONS	AREA IN SQ. MILES	TOTAL POPULATION ON APRIL 2, 1911.
England (including Monmouthshire).	50,874	34,045,290
Wales.....	7,466	2,025,202
Scotland.....	30,405	4,760,904
Ireland.....	32,586	4,390,219
Isle of Man	227	52,016
Channel Islands.....	75	96,899
TOTAL.....	121,633	45,370,530

Massey-Harris New No. 5 Binder



The Direct-Acting Pitman is of good length and works as nearly in line with the Knife as practicable, reducing friction and wear to a minimum, and giving to the Knife a positive, sure-cutting motion.



To take full advantage of the work done by the Reel and to save all the grain, the Cutting apparatus must be capable of cutting very close, when conditions demand it, and the Massey-Harris has no equal on this point. The Binder will cut close without digging into the ground and without scraping dirt along in front of the Platform. The height of cut is readily changed by raising and lowering the Platform and by

means of the convenient Tilting Lever. This cut shows how the Cutter Bar is

constructed to enable the Knife to cut a very short stubble, as close as 1 in. when desired.

The Elevator Chain on the Massey-Harris runs on the outside of all Sprockets. A Chain which winds in and out, greatly increases friction and shortens the life of Sprockets, Chains and Bearings. An easily adjusted Idler Roller keeps this Chain at the proper tension.

THE ISLE OF MAN is administered in accordance to its own laws by the Court of Tynwald, consisting of the Governor, appointed by the Crown; the Legislative Council, consisting of 9 members, and the House of Keys, a representative assembly of 24 members.

THE CHANNEL ISLANDS are administered according to their own laws and customs. Jersey has a separate legal existence. Guernsey, Alderney and Sark are under one Lieutenant-Governor, but Guernsey and Alderney have government of their own and Sark is a Dependency of Guernsey and under its jurisdiction.



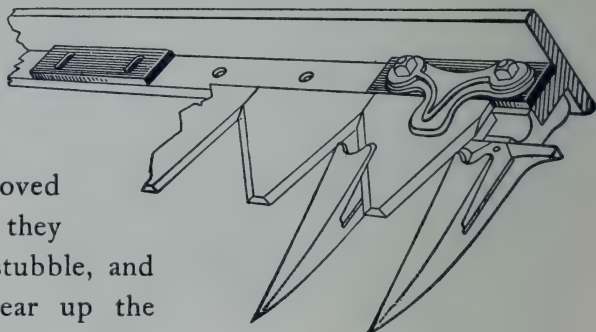


Massey-Harris New No. 5 Binder



The Knife Sections have specially tempered, keen-cutting edge with soft centre of tough Steel, giving first-class cutting qualities and retaining the full strength of the unhardened tough centre portion. The tempering is done by our Patented, Automatic process which ensures all Sections being hardened just right.

Specially Rolled Steel is used for the Knife Back, giving ample strength and smooth wearing surfaces.



The Guards are of approved design, so shaped that they readily pass through the stubble, and have no projections to tear up the ground and increase the draft. They are carefully fitted and securely attached to the Cutter Bar so that they remain in proper alignment.

The Dividers are effective under all conditions. The Outer Divider raises fallen grain so that it is readily cut and finds its way to the Elevators and thence to the Binding Mechanism. The Grain Wheel is so placed that it does not run down any grain. Both Dividers are perfectly rigid when at work, but can be folded in an instant so that the Binder will pass through a narrow gateway when mounted on Transport Truck.



On the following pages the various sections of the British Empire, outside the United Kingdom, are arranged in alphabetical order under the division of the world to which they belong, Europe, Asia, Africa, America, Australasia and Oceania.

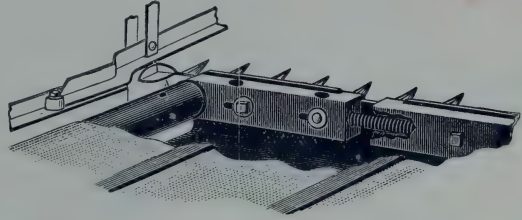
The Colonies proper form three classes (1) The Crown Colonies, which are entirely controlled by the Home Government; (2) Those possessing representative institutions in which the Crown has no more than a veto on legislation, but the Home Government retains the control of Public Officers; and (3) Those possessing

Massey-Harris New No. 5 Binder

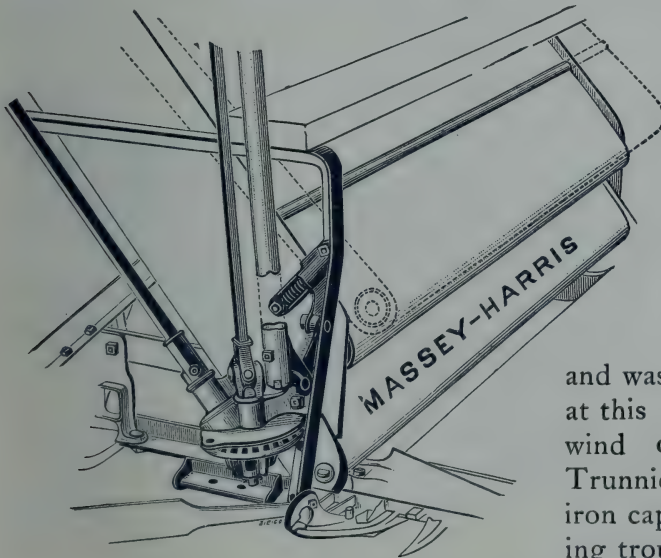


The Elevator Canvases are of good width and there is plenty of room for tall grain to readily pass up the Elevator.

The Platform Canvas is automatically kept at proper tension by a Spring Device, as shown in cut. This is a great advantage when working in damp grain or under any conditions causing the Canvas to stretch or shrink, and often prevents tearing of the Canvas when it shrinks.



The Upper Elevator floats at front and rear—an exclusive Massey-Harris Feature—insuring positive elevation of light and heavy grain, grass bottoms, etc. It automatically adjusts itself to any volume of grain and saves wear and tear on the Canvas.



The Seventh Roller at the upper end of Elevator prevents straggling and waste of straw and grain at this point. Straw cannot wind on Rollers for the Trunnions are provided with iron caps, absolutely preventing trouble of this sort.

Responsible Government in which the Home Government has no control over any Public Officer, though the Crown appoints the Governor and still retains a veto on legislation.

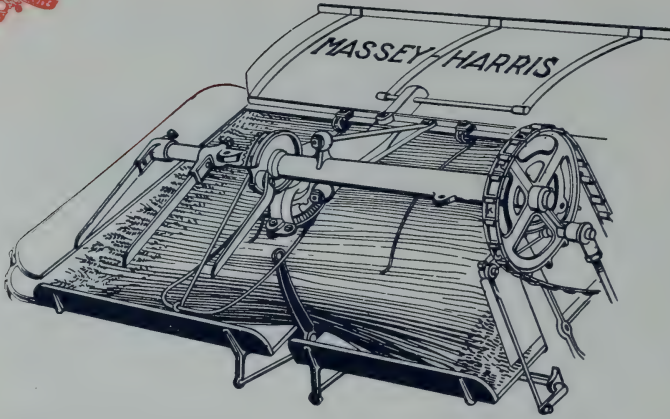
GIBRALTAR. The Rock of Gibraltar is a Crown Colony in the Province of Andalusia, Spain, commanding the entrance to the Mediterranean. Area, $1\frac{1}{8}$ sq. miles; greatest elevation 1,439 feet; population, including, Civil, Naval and Military, 18,446.

MALTA is one of the most important points of call in the world, and is the base and resort for the repair and refitment of the





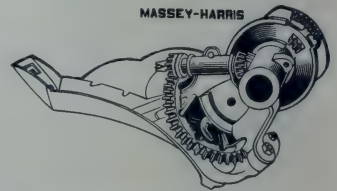
Massey-Harris New No. 5 Binder



The work of a Binder is judged to a large extent by the appearance of the sheaf. The Massey-Harris makes neat, square-butted sheaves of any desired size and puts the band where you want it with tall or short grain.

Three Packers, one of which works very close to the butts, working in conjunction with the positive vibrating Butter carry the grain forward to the Knotter.

The reliability of the Massey-Harris Knotter has long since become a matter of common knowledge. It has remained unchanged for years because no improvement has seemed to be necessary or desirable. Composed of the fewest possible parts and with provision made for taking up wear on the Pinions, it is an easy matter to keep it always in perfect working order.



Knotter is Simple but Effective.

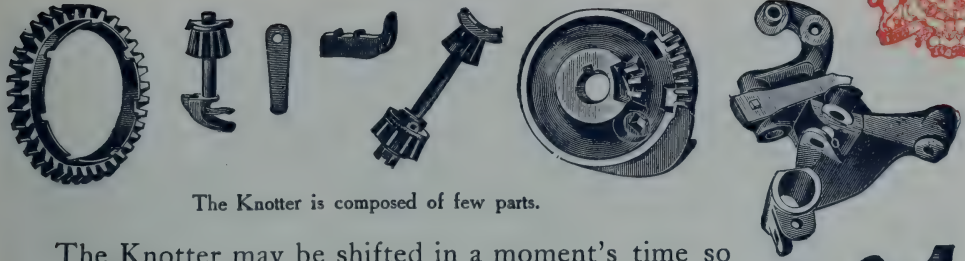
Any desired tension can be placed on the twine by means of the simple, but effective, Spring Tension, and any ordinary knot, or enlargement, may pass through the Tension and Knotter without interfering with the work of the Binder.



British fleet in the Mediterranean. Its area is $91\frac{1}{2}$ sq. miles, and, with the neighboring Island of Gozo, about 118 sq. miles, with a total population of 216,617.

ADEN is a volcanic peninsula on the Arabian coast. It forms an important coaling-station on the highway to the East, and is strongly fortified. Area, 75 sq. miles. Including the Protectorate and the Island of Perim, which is 5 sq. miles, the total area is 9,005 sq. miles ; population 46,165.

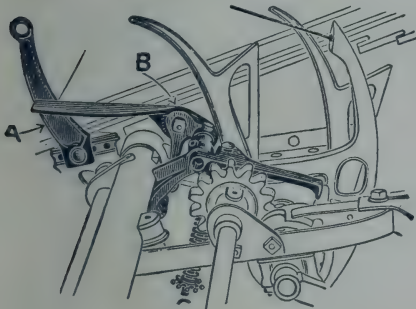
Massey-Harris New No. 5 Binder



The Knotter is composed of few parts.

The Knotter may be shifted in a moment's time so as to place the band in the middle of the sheaf with straw of varying length.

Sheaves can be made large or small and can be bound as tightly as desired. The accompanying illustration shows these adjustments. The Compressor "A" may be adjusted to any of the four holes shown, and the Trip Lever "B" is also adjustable. Tightness of the sheaf is regulated by turning the Malleable Nut "C" which acts upon the Trip Spring.



Size and Tightness of Sheaf easily adjusted.

No other Binder has so wide a range of adjustment, and on no other are these adjustments so easily made as on the Massey-Harris. Three Discharge Arms insure the sheaf being discharged quickly and positively.

The Twine Box is so placed that the driver can see at all times how much twine remains therein.



SOKOTRA. The Island of Sokotra off the coast of Africa is, under British protection, and the Kuria Muria Islands off the coast of Arabia are attached to Aden. Area of 1,382 sq. miles; population about 12,000.

BAHREIN ISLANDS. Group of islands in the Persian Gulf, 20 miles off the coast of El Hasa in Arabia, with a population of about 100,000.

BRITISH NORTH BORNEO occupies the northern part of the Island of Borneo. Area, about 73,106 sq. miles, including the



Massey-Harris New No. 5 Binder



SPECIAL FEATURES OF THE MASSEY-HARRIS BINDER

Strong Steel Frame, thoroughly braced and trussed.

Heavy Ground Wheel with broad face, giving ample power.

Double Truss Construction keeps Drive Wheel true.

Positive Four-point Clutch for putting in and out of gear.

Automatic Chain Tightener, keeps Chain at proper tension.

Relief Spring breaks the jar on rough ground.

Roller Bearings make light draft and save wear.

Self-Aligning Bearings always run free.

Easily adjusted Reel—One Lever does it all.

Lever Adjustment for binding long or short grain.

Adjustable Steel Plates on Cutter Bar for taking up wear.

Automatic Spring Tension for Platform Canvas.

Seventh Roller prevents bunching and loss of grain.

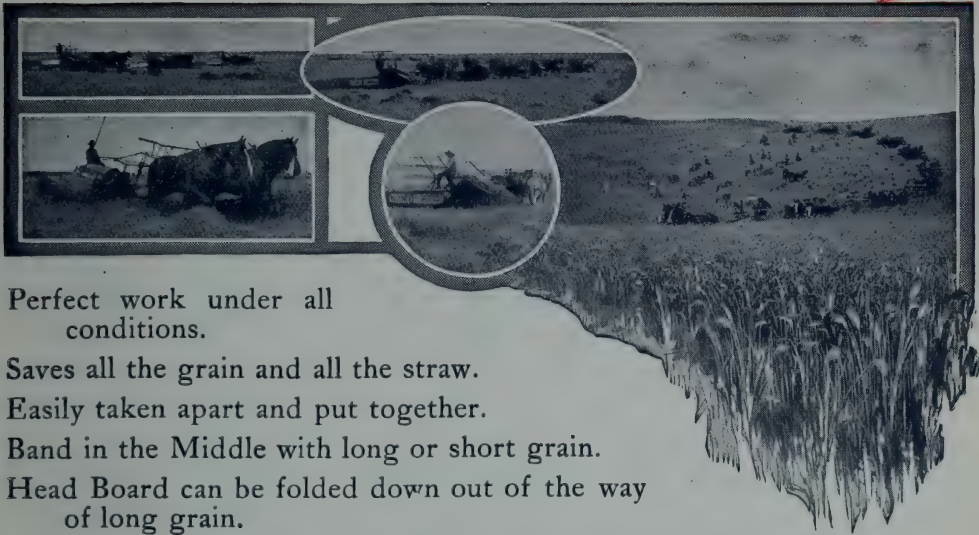
Reliable Knotter, always ties, and always ties tight.

Island of Sarawak, population (also including Sarawak) about 708,000.

CEYLON. Area, 25,331 sq. miles; population, 4,189,246. The Maldive Islands, 400 miles to the west of Ceylon, are governed by an elected Sultan and pay a yearly tribute to the Ceylon government; population, about 50,000.

CYPRUS. This island is the third largest in the Mediterranean, 60 miles from the coast of Asia Minor and 41 miles from the coast of Syria. Area, 3,584 sq. miles; population, 282,388.





Perfect work under all conditions.

Saves all the grain and all the straw.

Easily taken apart and put together.

Band in the Middle with long or short grain.

Head Board can be folded down out of the way of long grain.

Square-Butted Sheaves—The Positive, Vibrating Butter does it.

Drop Boards hold sheaf till knot is tied, then drop down out of the way.

Easily raised and lowered by means of handy Cranks.

Folding Dividers, rigid while in working position but easily folded for transporting.

Easily Mounted on Transport Truck, and when so mounted will pass through a very narrow gateway.

Folding Sheaf Carrier can be furnished when ordered. It is always ready but never in the way.

Adjustable Seat enables a heavy or light driver to balance the machine and take all weight off horses' necks.

Simple, Durable and not liable to get out of order.

Four sizes:—5 ft., 6 ft., 7 ft. and 8 ft. cut.

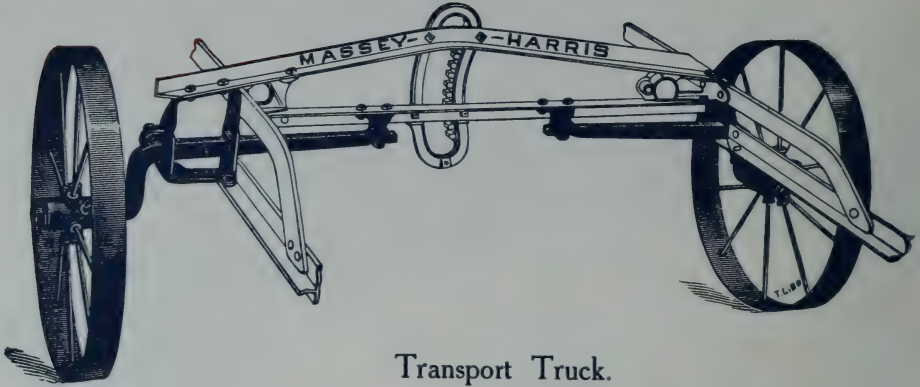
HONG KONG. A Crown Colony. The great centre for British commerce with China and Japan, and a Military and Naval Station of first-class importance. Area, about 29 sq. miles (with leased territory adjacent, 405 sq. miles); population, including leased territory, 456,739.

INDIA and DEPENDENCIES. India comprises all that part of the great Indian Peninsula which is directly or indirectly under British rule or protection. In a popular sense it includes also certain countries such as Nepal, which are beyond that area,



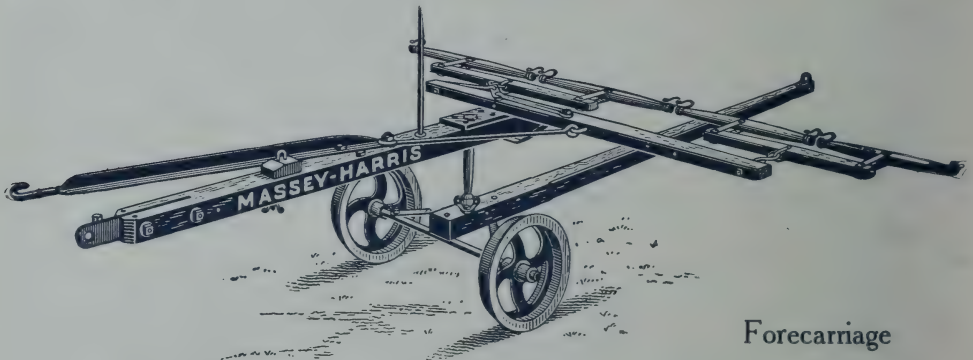


Attachments for Binders



Transport Truck.

One man can mount the Binder on this Truck in a few minutes. When mounted the weight is so perfectly balanced that there is no danger of straining or twisting the machine. Both the outside and inside Dividers fold out of the way.



Forecarriage

A most valuable addition to the Binder, lightening the draft, overcoming side draft, relieving the horses of all neck weight and making the Binder run steadier, consequently will do better work. When hitching or unhitching it is not necessary to lift the weight of the machine.

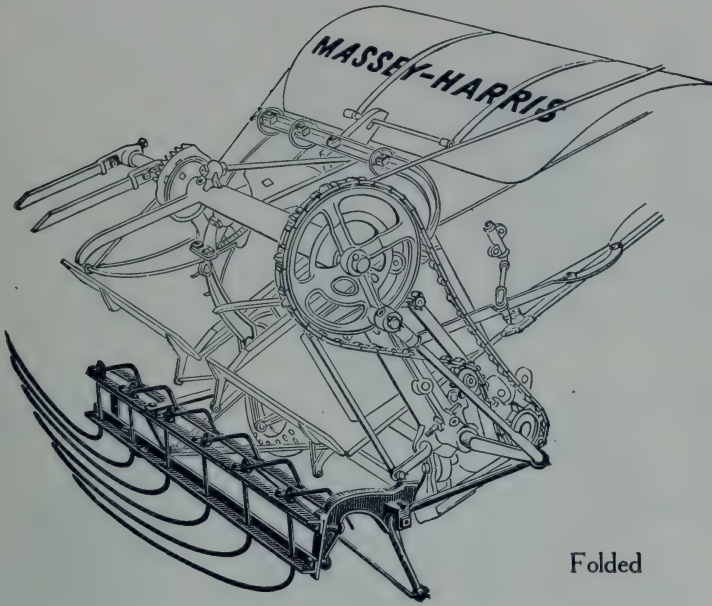


but whose relations with India are a concern of the Foreign Department of the Government whose agent resides in the country concerned. The term British India includes only the districts subject to British law, and does not include Native States.

Area of British India, 1,093,074 sq. miles; Feudatory States, 709,583 sq. miles; total, 1,802,657.

Population of British India, 244,267,542; Feudatory States, 70,888,854—315,156,396.

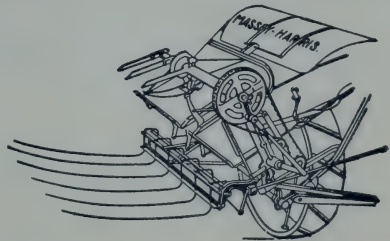
Attachments for Binders



Folded

Sheaf Carrier.

Simple, strong, does not sag, is easily tripped by the driver's foot and discharges the sheaves without shelling grain. It works satisfactorily on the level or on a hillside. If it strikes a stump or other obstruction it folds automatically and prevents breakage. It is not necessary to climb over or on it to oil the machine, as it folds close to side of Binder; it is always ready but never in the way.



Ready to Receive the Sheaves.

STRAITS SETTLEMENTS. A Crown Colony which comprises Singapore, Penang and Malacca, Cocos Island, Christmas Island and Labuan. Area, 1,630 sq. miles; population, 745,362.

FEDERATED MALAY STATES consist of Perak, Selangor, Negri Sembilan and Pahang, which occupy a large portion of the Malay Peninsula. The officer administering the government of the Straits Settlements is ex-officio H. M.'s High Commissioner for these States and the other Malay States in the British sphere.

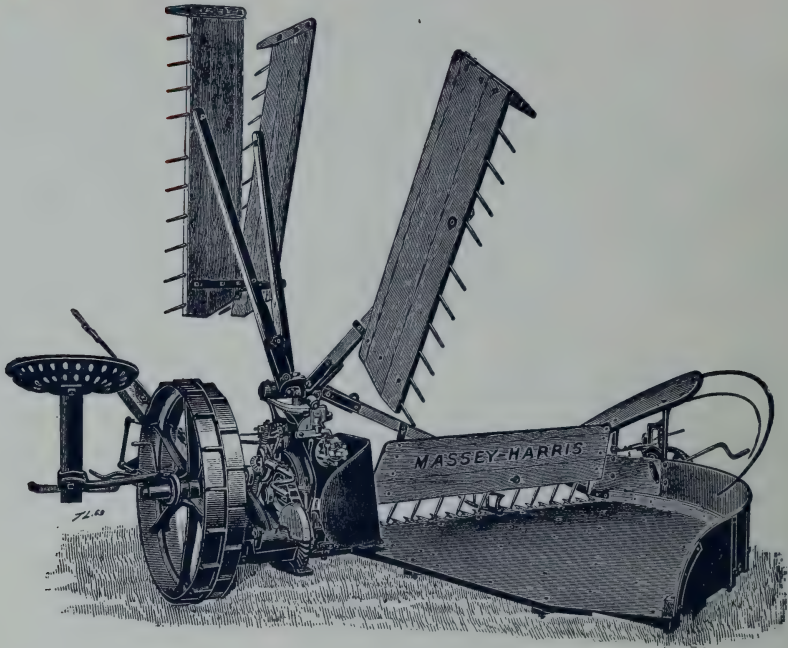
Area, 27,506 sq. miles; population, 1,172,500.

Other Malay States comprise an area of 24,600 sq. miles and have a population of 950,000.



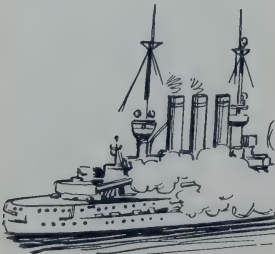


Massey-Harris No. 2 Reaper



Although in Canada the Reaper has been almost entirely replaced by the Binder for harvesting grain, many of these Reapers are sold for the cutting of flax and are giving splendid satisfaction. Flax is becoming an important crop in many sections and this implement is especially well adapted for cutting this crop.

The Massey-Harris New No. 2 Reaper is the only Reaper made with a Steel Platform. It is not a thin facing of metal on a wood foundation, but is made from heavy Sheet Steel, well braced and protected by heavy hardwood crossbars from injury by stones and stumps.



WEI-HAI-WEI is in the Chinese Province of Shantung, comprising, besides the Port and Bay, the Island of Liu Kung, all the islands in the Bay, and a belt of land 10 English miles wide along the entire coast-line of the Bay. Area, 285 sq. miles; population, 147,133.

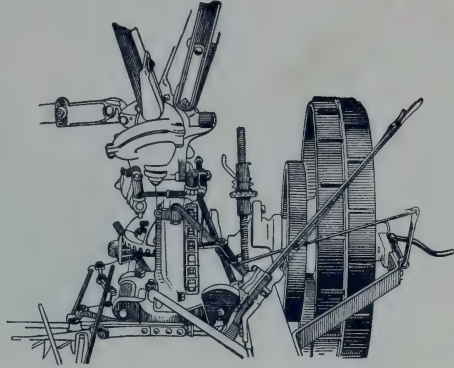
ASCENSION ISLAND. A small island of volcanic origin, of 34 sq. miles, in the South Atlantic, 700 miles northwest of St. Helena, with a population of 400.

Massey-Harris No. 2 Reaper

Main Wheel is large, has deep tugs, and, as it carries nearly all the weight of machine and driver, gives ample traction.

Gears are carefully fitted, run smoothly, and are well protected by shields.

Cutting Mechanism is the well-known Massey-Harris standard — easy-running, sure-cutting, long-lasting. Width of cut, 5½ feet.



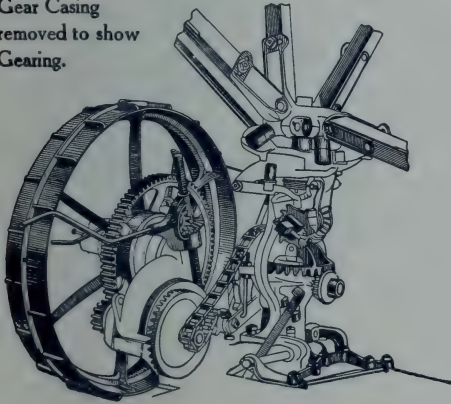
The Tilting Lever and Foot Trip.

Pitman has Steel Straps at Knife End, and removable Brass Bushing at Crank End.

Rakes have steady and positive movements, free from the jerky motions so common to Reapers.

A Foot Trip enables the operator to cause every rake, every second, third, fourth or sixth rake to sweep the Platform.

Gear Casing removed to show Gearing.



Platform is easily raised and lowered by means of a crank at each end.

A convenient Tilting Lever enables driver to tilt the Platform as required for picking up lodged grain.

It is an easy matter to fold this Reaper for transport. No extra parts are needed, therefore none to get misplaced.

BRITISH EAST AFRICA consists of a large area on the mainland, including the East Africa Protectorate and the Uganda Protectorate, together with the Islands of Zanzibar and Pemba. Area, 369,279 sq. miles; population, 7,128,694.

MAURITIUS is in the Indian Ocean, 500 miles east of Madagascar; has an Area of 809 sq. miles (with its Dependencies); population, including Dependencies, 378,427.

NYASALAND PROTECTORATE (until 1907 British Central Africa). Has an area of 39,315 sq. miles. The population is estimated at 1,000,000.



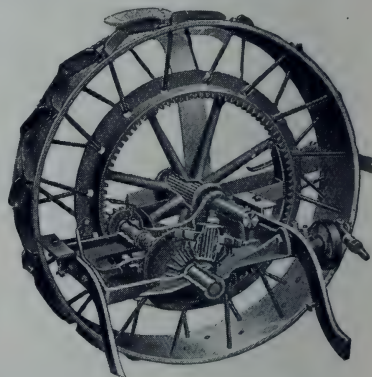


New No. 4 Massey-Harris Corn Binder

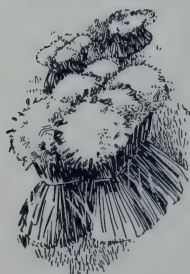


Corn is a difficult crop to cut, and it is important that the machine selected for the purpose be capable of handling the crop in a satisfactory manner. The New Massey-Harris Corn Binder is built on the same plan as the Johnston, which has been so successful in harvesting the heavy crops in the great corn belt of the Middle and Western States. Many of them have been sold in Canada during the past few seasons and have given splendid satisfaction.

The Main Frame of the Massey-Harris is of Steel in one piece and wide enough to permit the machine to work easily on side-hills. Ours is the only machine of its class having the Pole attached to the Frame on the inside of Main Wheel—this divides the weight, and works between Wheel and operator on one side and Elevator and Gearing on the other, with the Binder Attachment directly in the line of draft. This ensures the machine being always in perfect balance and eliminates side draft.



Forty-Inch Wheel, Roller and Brass Bush Bearings.



ST. HELENA. Of volcanic origin, about 800 miles from Ascension Island and 1,200 from the west coast of Africa. Area, 47 sq. miles; population, 3,519.

SEYCHELLES and Dependencies consist of 90 islands and islets with a total estimate area of 156 sq. miles and a population of 23,507.

SOMALILAND PROTECTORATE. Area, 68,000 sq. miles; population, 347,000

New No. 4 Massey-Harris Corn Binder



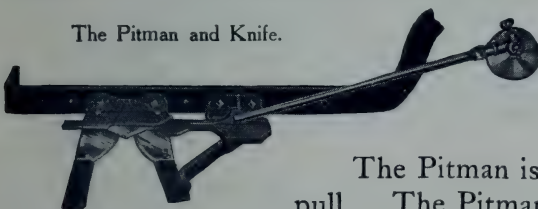
The Drive Wheel is of an improved type, 40 inches in diameter, with a wide Rim and Angle Steel Traction Lugs—giving great power.

Dust-proof Roller Bearings in the Hub of Drive Wheel reduce wear and draft.

A large Internal Gear in the Main Wheel drives the Main Gear Shaft from which the various working parts are operated by means of Gears and Sprockets—the Drive Mechanism being simple and of the most substantial construction.



Showing Frame, Wheels and location of Pole and Seat.



The Pitman and Knife.

Sufficient and positive power is essential in cutting corn and there is a great sufficiency of both in our Binder.

The Pitman is adjustable with direct push and pull. The Pitman Head is brass and self-oiling—never runs hot, causing friction.

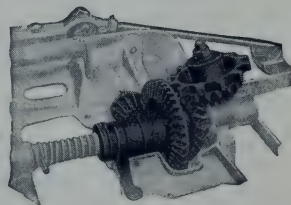
The Cutting Apparatus is very simple and effective. It consists of two long, stationary Side-Knives and a regular Section or Smooth Knife. The Knife Bar is held in line by a Steel Wear Plate.



The Folding Conveyor Fingers

By this superior apparatus the corn is *cut*, not *torn up* by the roots. There is no clogging—grass and weeds are cut.

The Gearing is very strong and meshes perfectly. Can be thrown in and out of gear by the driver from his seat.



The Main Drive Gears.

SOUTH AFRICA consists of Basutoland, Bechuanaland, Rhodesia, Swaziland, and the Union of South Africa, comprising Cape Colony, Natal, Transvaal and the Orange River Colony. Area (all of South Africa), 1,205,927 sq. miles; population. 8,591,757.

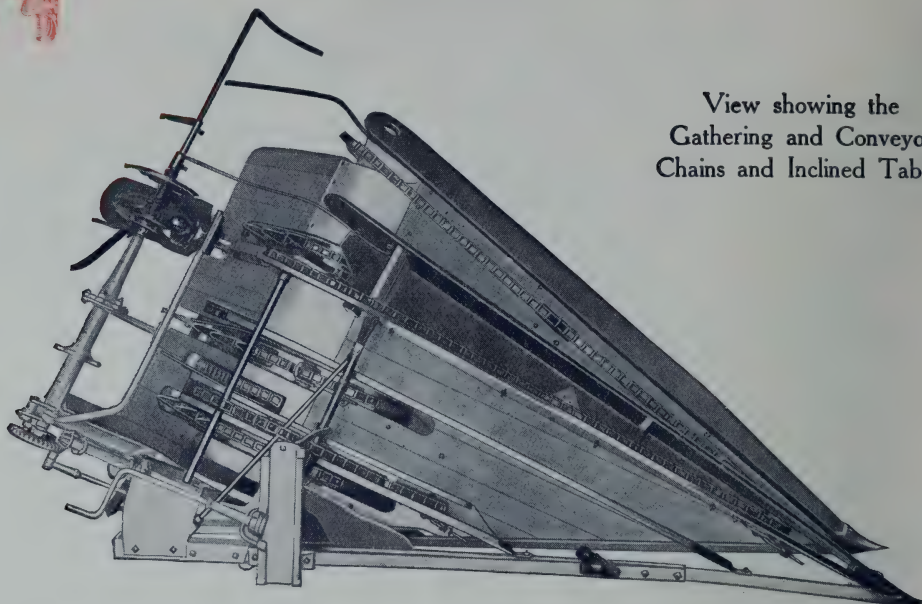
WEST AFRICA. These possessions are the Colony and Protectorate of Nigeria; the Gambia Colony and Protectorate; the Gold Coast Colony with Ashanti and Northern Territories; and





New No. 4 Massey-Harris Corn Binder

View showing the
Gathering and Conveyor
Chains and Inclined Table.



The Gathering Chains with stationary Fingers pick up the down corn, including the row passed when opening up the field. They handle tangled corn perfectly.

The Conveyor Chains with Folding Fingers carry the corn to the Binder Attachment. Just before the Needle passes around the bundle, Automatic Gates (found only on this machine) release the Fingers, allowing them to fold and keep the incoming corn from crowding.

There are no Packers on this machine, and, as a result it knocks off fewer ears than any other Binder.

All Levers are convenient to the operator, giving him perfect control of the machine.



The Automatic Gates.



Sierra Leone Colony and Protectorate. Area, 451,580 sq. miles ; population, 20,516,918.

BERMUDAS. A Colony with Representative Government, consisting of a group of 360 small islands (about 20 inhabited), 580 miles east of North Carolina, and 677 miles from New York. Area, 19 sq. miles ; population, 19,152.

CANADA with its 9 Provinces and 2 Territories has an area of 3,729,665 sq. miles, with a population of 7,758,000. (See pages 25 to 104 for detailed information).

New No. 4 Massey-Harris Corn Binder

The Bundle Carrier is of steel; holds four bundles; is operated at the will of the driver from the seat.

The machine is only 5 feet 11 inches wide and will easily pass through the ordinary farm gateway.

A strong, durable, satisfactory machine:
Large Main Wheel—Plenty of power—light, direct draft,—Inclined Elevation, which is the natural way—perfect balance—works well on any kind of land, side hills or level ground.



The Binding Attachment is capable of handling short or tall corn, heavy or light. It is Gear driven and is positive in action. Will bind above or below the ears, placing the band anywhere from 18 to 32 inches from the butts. For very short corn, the Binder Frame Extension is removed and the Needle and Knotter lowered. The Stalk Channel has an adjustment of 4 inches.



The cut at the left shows the Binder Attachment set for tall corn. At the right, the Binder Frame Extension has been removed to adapt it for binding short corn.

FALKLAND ISLANDS. Crown Colony situated in South Atlantic, 300 miles east of Magellan Straits. Area, 7,500 sq. miles; population, 3,298.

BRITISH GUIANA. Area, 90,277 sq. miles; population, 299,044.

BRITISH HONDURAS. Crown Colony in the Caribbean Sea. Area, 8,598; population, 41,000.

NEWFOUNDLAND and LABRADOR. Area, 162,734; population, 245,137.





Massey-Harris No. 14 and 15 Mowers

No. 15 Mower.

4½ and 5 ft. Cut.



These Mowers have been giving good service to thousands of farmers, not only in Canada but in many other countries, cutting light and heavy crops under every conceivable condition. They are no experiment, but a tried and proven implement.

The Main Frame is made in one piece, is light and symmetrical, but, being designed on scientific lines, the strain is evenly distributed and it has proved to be amply strong. There are no weak points in it.

No flying start is necessary with a Massey-Harris Mower—there is no lost motion—the Knives begin to operate the instant the Wheels begin to turn.



BRITISH WEST INDIES consists of the following: Bahamas, Barbados, Jamaica, Leeward Islands, Windward Islands and Trinidad. The combined area of these islands is 12,121 sq. miles; population, 1,731,232.

AUSTRALIAN COMMONWEALTH. Australia consists of 6 Colonies, New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania, also Northern Territory and Federal Territory, with an area of 2,974,581 sq. miles; population, 4,802,174.

Massey-Harris Nos. 14 and 15 Mowers



No. 14 Mower.
3½ and 4 ft. Cut.

There is ample traction for the heaviest cutting. The Drive Wheels are high, broad-faced and provided with efficient Traction Lugs. The under-draft feature overcomes any tendency of the Wheels to rise from the ground in heavy cutting. On the contrary, the heavier the pull, the harder do the Wheels bear on the ground.

Light-running and long-lasting Bearings are the order in these Mowers—Roller and Ball Bearings and Brass Bushings, each of the type best adapted to the place it is used. An adjustable Ball Bearing takes the end thrust of the Bevel Gear Shaft and makes it an easy matter to keep Gear and Pinion in proper mesh.

The Guards of a new and approved type pass readily through the stubble and there are no projections below to tear up the ground and increase the draft.

The Raised Ledger Plates give long cutting edge—the whole length of the Plate,—and ample clearance. They have serrated edges.

The Knife is held in position for clean, easy cutting by broad-faced Steel Clips, and works against Hardened Steel Wearing Plates with long wearing surfaces.

The Front and Rear Push Bars are joined together near the outer end of the Hinged Coupling in such manner that there is no chance for slackness at this point. The Coupling extends for considerable distance along the Front Push Bar, greatly strengthening the connection.

NEW ZEALAND consists of two principal islands and a number of smaller islands, with a combined area of 103,861 sq. miles; and population of 1,128,160.

FIJI ISLANDS comprise a group of over 200 islands. Total area is 7,435 sq. miles, and population is 149,179.

TONGA or FRIENDLY ISLANDS, SOLOMON and GILBERT ISLANDS have an area of 15,356 sq. miles, and a population of 201,000.





Massey-Harris Nos. 14 and 15 Mowers

Knife Sections are all made by our Patented Soft-Centering, Edge-Hardening Process which gives a tough centre with a hardened knife-keen cutting edge. Cutter Bar is free to follow the ground to ensure perfect cutting on uneven surfaces, and can be tilted to cut high or low as desired.

The Finger Bar is made of specially Rolled Steel of the quality best adapted for the purpose, the same material also being used for the Knife backs.

Both ends of the Pitman and Knife Heel are made of solid forged steel, giving much greater wear than the usual malleable iron ones, and being easily welded by any ordinary blacksmith in case of accidental breakage. The Crank Head End of Pitman has a Brass Bushing enclosed in an oil chamber from which the oil is drawn while Pitman is in motion only. When Pitman is at rest the oil is retained in the Reservoir.

The Gears are ample in size and especial care is taken in fitting them, with the result that they run smoothly and with very little noise. Shields protect the Gears from dirt and trash, preventing breakage and excessive wear on these parts.

OTHER FEATURES WORTH NOTING ARE:—

The convenient, easy-acting Foot Lift.

The Flexible Swathboard which makes a wide clear track, even when working in a heavy crop.

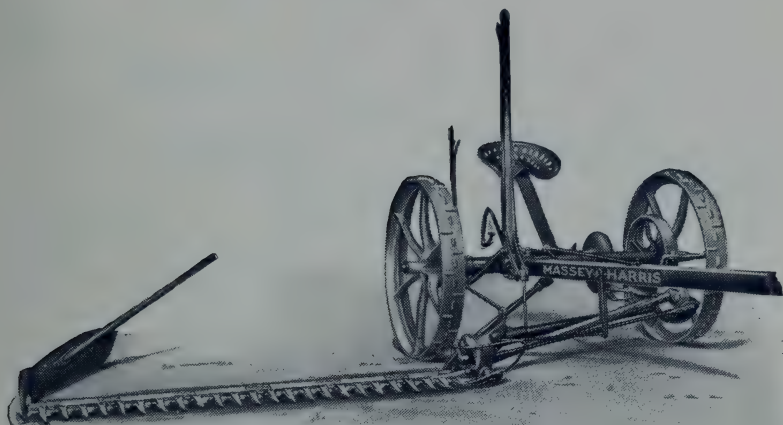
The new Oil Can Holder which holds the oil can securely, regardless of jolts and bumps.



The area and population of the British Empire can be summarized as follows:—

	AREA IN SQ. MILES.	POPULATION
United Kingdom.....	121,633	46,035,570
Europe.....	120	235,063
India.....	1,802,657	315,156,396
Asia (except India).....	166,834	8,709,533
Australia and Pacific Islands.....	3,191,773	6,551,513
Africa.....	2,135,147	37,990,222
America.....	4,010,914	10,096,863
Total.....	11,429,078	424,775,160

Massey-Harris New No. 21 Mower



However large your field may be—however heavy may be the crop—this Mower enables you to cut it surely and quickly.

Its great strength, easy-running, absence of side-draft, clean-cutting and ease of handling are some of the Features which commend it to the Progressive Farmer.

The Tread is wider than on other large Mowers, and the Wheels are high and broad-faced. This eliminates side-draft, makes a steadier, smoother-running machine, and there is no danger of upsetting on the steepest hillside.

On Mowers carrying a long Bar, the Coupling and Push Bars are subjected to a great strain, and for this reason we have given especial attention to these parts, so that the Cutter Bar may always be kept in line and working properly. Both Push Bars are exceptionally heavy and

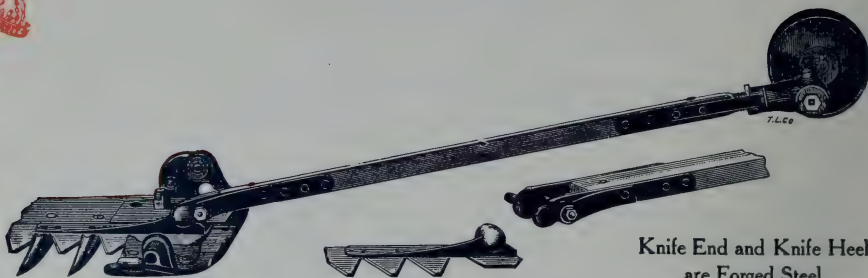
THE DOMINION OF CANADA.

The territories which now constitute the Dominion of Canada came under British power at various times, some by settlement and others by conquest or cession. Nova Scotia was occupied in 1627; the Hudson's Bay Company's Charter, conferring rights over the territories to the east and west of the Bay, was granted in 1670; Canada was conquered in 1759, and, along with New Brunswick and Prince Edward Island, was formally ceded to





Massey-Harris New No. 21 Mower



stiff. Both are attached to the Frame by machine-fitted connections with screw adjustments for lining up the Bar.

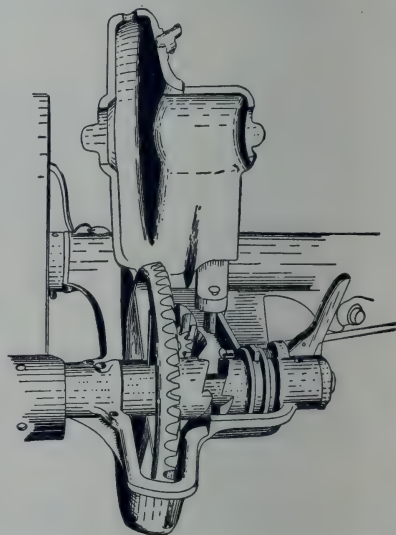
The Hinged Coupling has exceptionally long bearing on the Push Bar, large bearings for the Shoe Pins, and these Pins are extra heavy—effectually preventing any looseness of the Cutter Bar.

The Cutter Bar is specially rolled of the best grade of Steel for the purpose, and is amply heavy to keep its shape under the most severe strains.

The Bearing at Crank end of Crank Shaft is a removable Brass Bushing as used for years on Massey-Harris Mowers and has given the best of satisfaction.

The Pitman is extra long and works in line with the Knife, reducing friction and wear to the minimum.

The Gears are of ample size, are carefully fitted, and run smoothly and quietly. The Clutch is extremely simple, as will be seen by referring to the illustration. It



Powerful, Smooth-Running Gears, Improved Clutch and Throw-Out.



Great Britain by France in 1763; Vancouver Island was acknowledged to be British by the Oregon Boundary Treaty of 1846, and British Columbia was occupied in 1868. As originally constituted, the Dominion was composed of the Provinces of Canada—Upper and Lower—Nova Scotia and New Brunswick. They were united under the provisions of an Act of the Imperial Parliament passed in March 1867, known as the "British North America Act, 1867," which came into operation on July 1, 1867, by royal proclamation. The Act provides that the Constitution of the Dominion shall be "similar in principle to that of the United

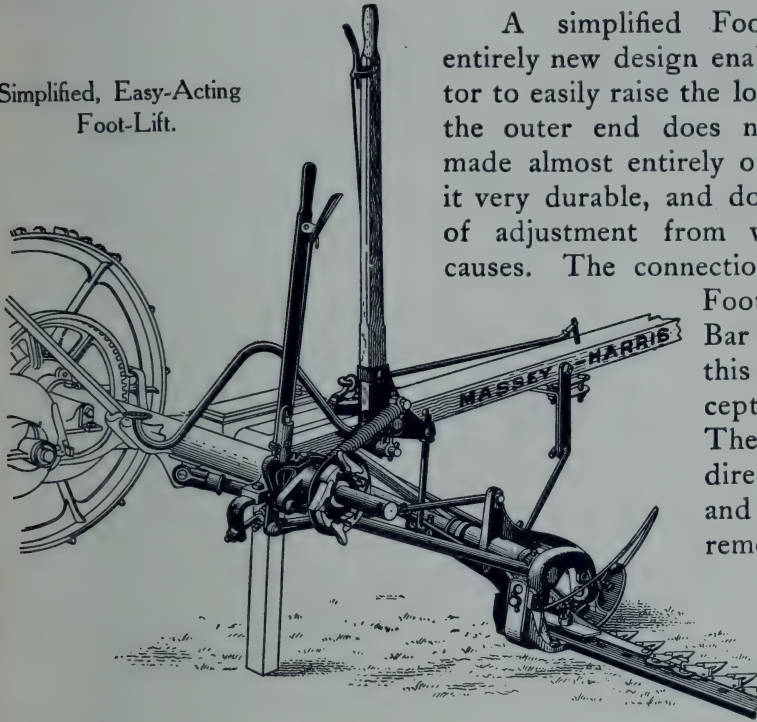
Massey-Harris New No. 21 Mower



gives a more direct connection than other forms of Clutch, and the Throw-Out Device is very simple.

The Bevel Gear Shaft runs in removable Bushings at both ends. These can be easily and cheaply replaced should they become worn.

Simplified, Easy-Acting
Foot-Lift.



A simplified Foot-Lift of an entirely new design enables the operator to easily raise the longest Bar, and the outer end does not sag. It is made almost entirely of steel, making it very durable, and does not get out of adjustment from wear or other causes. The connection between the

Foot-Lift and the Bar is so direct that this Lift works exceptionally easily. The Lift is attached direct to the Frame, and the Pole may be removed without affecting the Lift or any other parts.

The Lift Spring is at the rear. This gives a direct connection to the Lift, it is much more readily accessible for adjusting, and is not affected when Pole is removed.

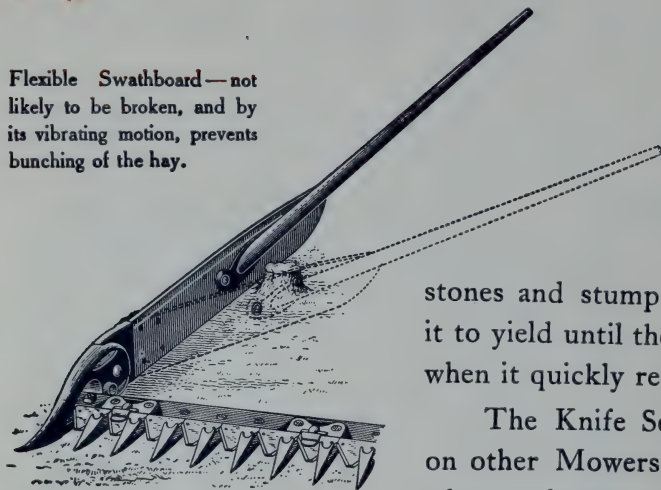
Kingdom"; that the executive authority shall be vested in the Sovereign of Great Britain and Ireland, and carried on in his name by a Governor-General and Privy Council; and that the legislative power shall be exercised by a Parliament of two Houses, called the "Senate" and the "House of Commons." Provision was made in the Act for the admission of British Columbia, Prince Edward Island, the Northwest Territories, and Newfoundland into the Dominion; Newfoundland alone has not availed itself of such provision. In 1869, the extensive region known as the Northwest Territories was added to the Dominion by purchase from





Massey-Harris New No. 21 Mower

Flexible Swathboard—not likely to be broken, and by its vibrating motion, prevents bunching of the hay.



The Flexible Swathboard makes a wide, clear track, even when working in a heavy crop and is not liable to be broken by coming in contact with stones and stumps, as the Spring allows it to yield until the obstruction is passed, when it quickly returns to position.

The Knife Sections are longer than on other Mowers, giving longer cutting edges and greater clearance.

By simply removing two bolts, the Pole may be removed without affecting any parts or changing any adjustments. This makes it possible to ship the Mowers set up complete, except the Pole and Cutter Bar, and is also a great convenience when storing the Mower.

Great care has been exercised in the balancing of the Mower, and the draft is directly on the Cutter Bar, effectually overcoming neck weight.

Other features which have been used with great success on our other Mowers are: Improved Guards with Raised, Serrated Ledger Plates; Adjustable Wearing Plates and Steel Clips; Four-Pawl Ratchets; Under Draft; Steel Pitman Ends and Knife Heel.

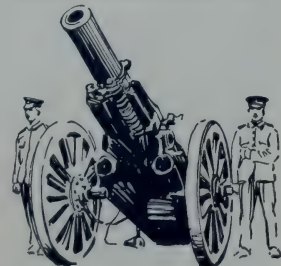


the Hudson's Bay Company; the Province of Manitoba was set apart out of a portion of it, and admitted into the confederation on July 15th, 1870. On July 20th, 1871, the Provinces of British Columbia, and by an Imperial Order in Council of May 16th, in the same year, Prince Edward Island, were admitted into the confederation. The Provinces of Alberta and Saskatchewan were formed from the provisional districts of Alberta, Athabaska, Assiniboia and Saskatchewan, and were admitted to the Union as Provinces on September 1, 1905.

Massey-Harris Mowers

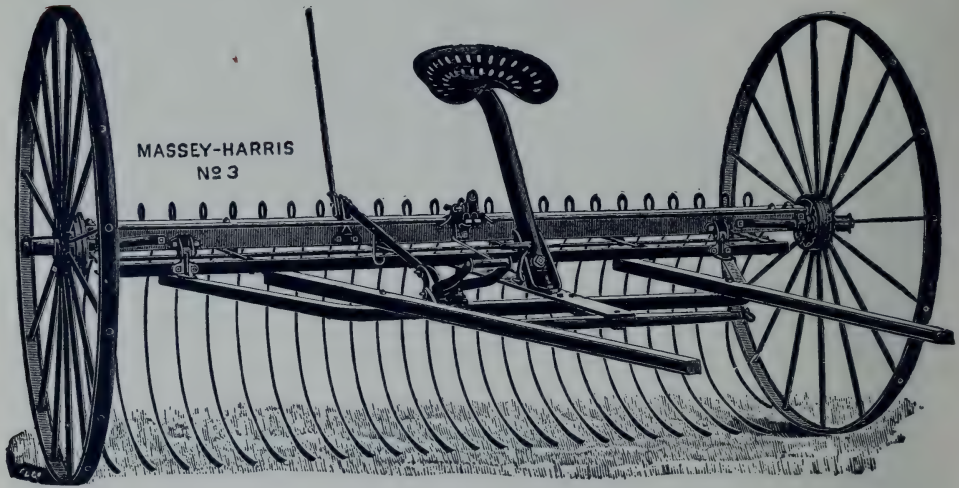


The members of the Senate are nominated for life, by summons of the Governor-General under the Great Seal of Canada. There are now 87 Senators. The House of Commons is elected by the people, for five years, unless sooner dissolved, at the rate at present of one representative for every 25,367 persons, the Province of Quebec always having 65 members, and the other provinces proportionally, according to their populations at each decennial census. The House of Commons consists of 221 members. For the next parliament the unit of representation will be on the basis of the population of Quebec at the census of 1911, 30,811.





Massey-Harris No. 3 Steel Rake



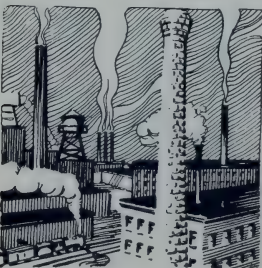
The Massey-Harris No. 3 Steel Rake is a light but very strong Rake, well adapted for raking light or heavy hay, can be dumped by the hand or by the Automatic Dump operated by the foot, and is light draft.

Angle Steel is used in the construction of the Frame which is braced and trussed in such manner as to prevent sagging or buckling.

The Automatic Dump works easily and positively, by simply pressing a Foot Trip.

It has great capacity—the basket is large and the Teeth lift well above the windrow. The Cleaners are oval-shaped steel and are connected by a Rod extending the entire width of Rake.

The Cleaners are effective when dumping, preventing the Points catching the windrow and stringing hay along behind the Rake.



The members of the House of Commons are elected by constituencies, the electors of which are supplied by franchises under the control of the several provincial assemblies. The qualifications for voting at provincial elections vary in the several provinces. Voting is by ballot.

Last election, September, 1911. State of parties: Conservatives, 134; Liberals, 87.

The Speaker in the House of Commons has a salary of 4,000 dollars per annum, and each member an allowance of 2,500 dollars

Massey-Harris No. 3 Steel Rake

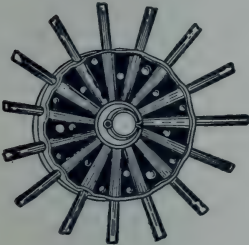


Simple, Automatic Dump.

The Wheels are of Steel with Hubs of Malleable Iron extending well out on the Spokes, making a very substantial form of construction.

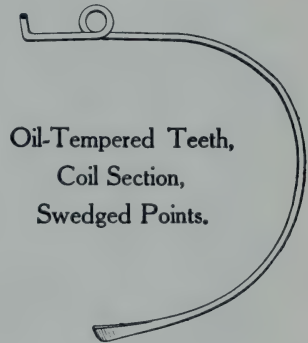
Teeth are made from high-grade Steel, oil-tempered and with Coil Section to give flexibility and prevent breakage. They have Swedged Points which pass

smoothly over the ground and through the stubble without digging into the ground, thus preventing the breaking of Teeth and saving all the hay without loss.



Strong, Steel Wheels.

Every Rake is equipped with two Guard Teeth without extra charge, as shown in cuts; these not only add to the width of the Rake but also keep the hay out of the Wheels.



Oil-Tempered Teeth,
Coil Section,
Swedged Points.

Made in 3 sizes:—

24 Teeth, 8 ft., 30 Teeth, 10 ft. and 36 Teeth, 12 ft.

for the session with a deduction of 15 dollars a day for absences. The Leader of the Opposition receives 7,000 dollars in addition to his ordinary sessional allowance.

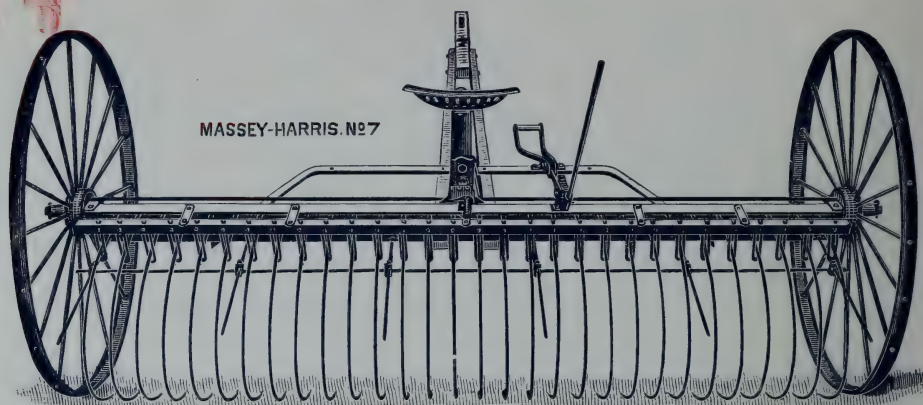
The Speaker and members of the Senate have the same allowances as in the House of Commons with no extra allowances.

The Governor-General receives a salary of £10,000 per annum, the Premier, 12,000 dollars, and each of the other ministers, \$7,000.

In the following pages will be found some interesting information regarding Canada's area, population, resources, etc.



Massey-Harris No. 7 Steel Rake

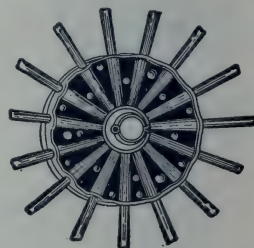


In general construction this Rake is similar to the No. 3 described on preceding pages, but the Teeth, instead of having Coil Sections as in that Rake, are flexibly mounted in the Rake Heads, allowing them to conform to rough and uneven land.

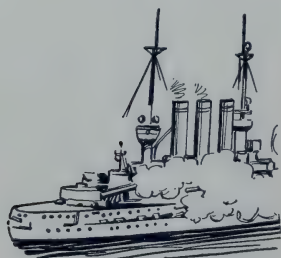
This adapts it especially for use on rough land where an ordinary Rake will not rake clean—the flexible mounting of the Teeth on this Rake ensuring the saving of all the hay.

Angle Steel is used in the construction of the Frame and is braced and trussed in such a manner as to prevent sagging or buckling.

The Automatic Dump works by means of Ratchets inside of both Hubs. By simply pressing a Foot Trip near the centre, the Rake is dumped, both Wheels acting as drivers and giving quick and positive motion. The Teeth return to raking position close to the windrow, so the whole field is raked clean. The Rake can be dumped by hand if desired.



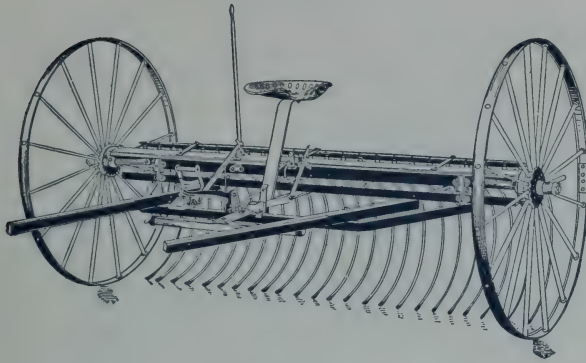
Strong Steel Wheels.



CANADA'S PROGRESS IN A NUTSHELL.

	1912.	1913.
Total trade, fiscal year.....	874,637,794	1,085,264,449
Imports.....	559,325,544	686,604,413
Exports.....	315,317,250	377,068,355
Trade with United States.....	\$488,679,741	\$662,432,937
Trade with United Kingdom.....	269,054,844	317,635,589
Trade with British Empire.....	307,840,816	361,759,036
Customs duties.....	85,051,872	115,063,687
Population.....	7,206,643	est. 7,758,000

Massey-Harris No. 7 Steel Rake



A convenient Lock is provided to hold the Teeth in a raised position from which position a touch of the foot causes them to drop to raking position.

This Rake has great capacity—the basket is large and the Teeth lift well above the windrow. Cleaners are oval-shaped steel and are connected by a steel rod extending the entire width of the Rake. Teeth are lifted well above the Cleaners in dumping, thus preventing the windrow being held by the points of the Teeth and strung along behind the Rake.

The Teeth are made from a high-grade steel on our Patented Bending Machine which does not injure the fibre of the steel when bending the Teeth, and are oil-tempered. They are securely attached to the main angle of the Rake but do not pass through it. Each Tooth can move independently to better conform to rough, uneven land.

Wheels are big and have wide Channel Steel Tires and heavy oval-shaped Steel Spokes.

The No. 7 Steel Rake is made in two widths:—26 Teeth raking 8 feet, and 32 Teeth raking 10 feet.

	1912.	1913.
Bank clearings.....	9,146,236,243	9,262,606,864
Paid-up bank capital (Oct.)....	114,134,182	117,341,476
Bank deposits.....	1,023,912,500	1,011,367,714
Railway mileage (June 30).....	26,729	29,304
Railways gross earnings.....	219,403,752	256,702,703
Government revenue (Consol. Fd.)..	136,108,217	168,689,903
Govt. expenditure (Consol. Fd.)...	129,960,416	112,059,537
Govt. capital expenditure.....	30,939,575	32,396,816
Public net debt, Mar. 31, 1913....	339,919,460	303,562,104
Total Can. produce exports.....	296,223,857	355,754,600
Agricultural exports.....	107,143,375	150,145,661





Massey-Harris Sharp's Rake



This world-famous Rake is supplied with 24 or 30 Oil-Tempered Steel Teeth, and with Steel or Wood Wheels. It dumps easily by means of a friction band, rakes well and leaves a clean field.

The slack in the Dump Band is taken up by adjustment of the Ratchet Washers.

The Shafts can be brought close together and made into a Pole if desired.

The Teeth are all made of the best quality of steel and are oil-tempered.

A very easy-acting Rake with great capacity and very strong, not liable to get out of order. It has been a favorite for many years, and its friends are legion.

Massey-Harris Ithaca Rake

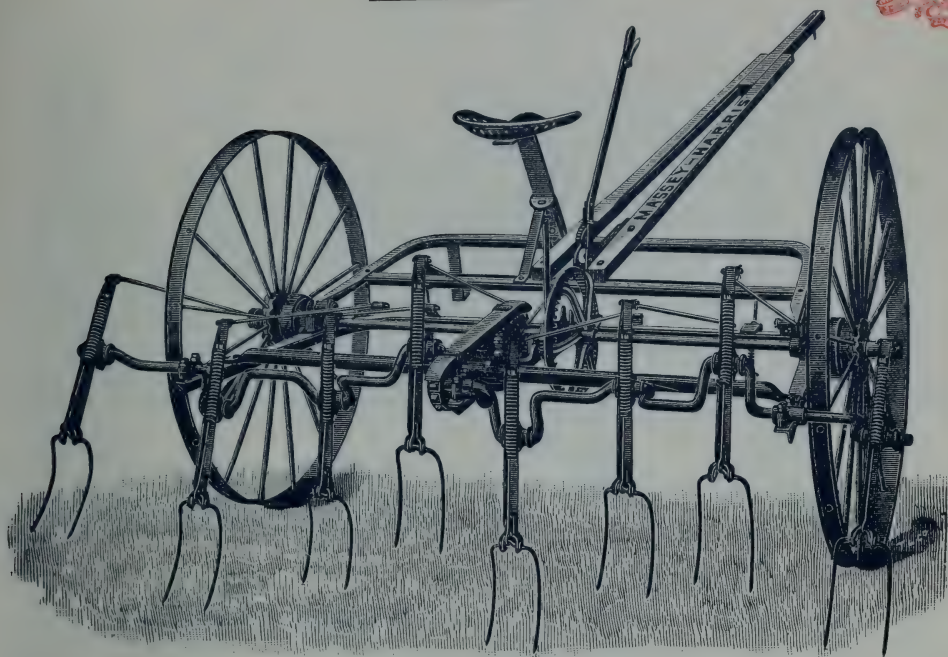
This is a very serviceable Rake. It has 24 of the Massey-Harris high-grade Rake Teeth, Strong Wood Wheels, and Spring Lift. With the new Spring Lift the work of dumping is made easy—a boy can do it.

This Rake is a great favorite in certain localities, and its popularity is well deserved.



	1912.	1913.
Animal products exports.....	48,210,654	44,784,593
Dairy exports.....	24,103,376	21,714,153
Wheat exported (bush.).....	64,466,286	93,166,009
Canada's live stock, value 1910	593,768,000	
Canada's wheat crop (bush.).....	199,236,000	231,717,000
Canada's field crops.....	557,344,100	552,771,500
Canada's root and fodder crops....	192,568,500	187,399,100
Fire Insurance in force.....	2,277,968,950	2,680,154,028
Life Insurance in force.....	950,413,333	1,070,265,000
Immigration, fiscal year.....	354,237	402,432
Vessels registered.....	8,088	8,380

Massey-Harris Steel Hay Tedder



Strong Steel Frame; Steel Wheels with heavy Channel Tires; Axle runs in Roller Bearings; Drive Chain is protected by a Steel Shield. Fork Arms are Angle Steel and the Fork Arm Rods work in Steel Bearings at both ends. Forks have a quick and positive motion. The Springs on Fork Arms give elasticity to each stroke and with the Frame Cushion Springs, prevent brevent breakage. One Fork works outside each Wheel—all the hay is thoroughly teded.

By means of a convenient Lever the height of the Forks is easily regulated, and another Lever puts the Forks in and out of gear.

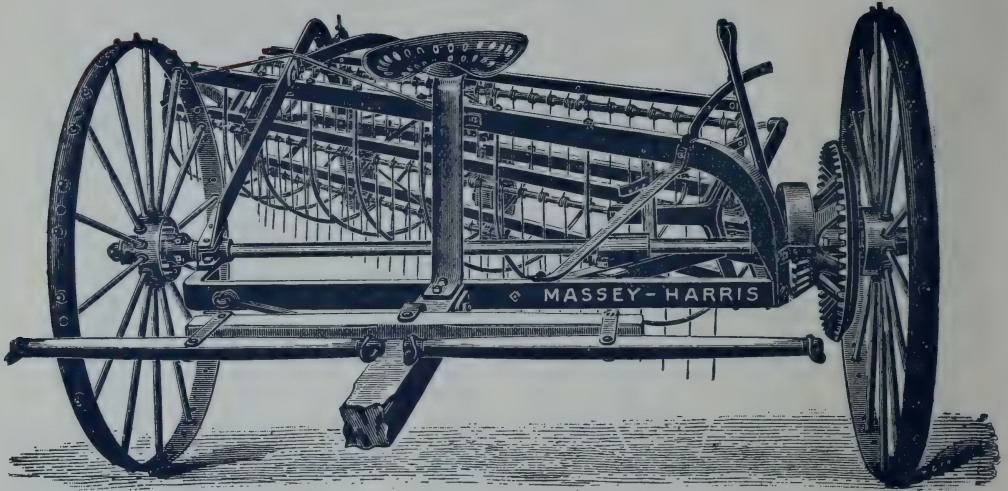
The 6 Fork measures 6 ft. across the outside Forks—the 8 Fork measures 7 ft. 6 in., but the hay is teded from one to two feet wider according to conditions.

	1912.	1913.
Mineral exports.....	41,324,516	57,442,546
Mineral production (1911).....	102,000,000 ('12)	135,048,296
Fishery products.....	34,667,872	33,384,469
Fisheries exports.....	16,704,678	16,336,721
Forests exports.....	40,892,674	43,255,060
Forest products, 1911.....	161,093,031 ('12)	161,802,049
Can. manufacturers' exports.....	35,836,284	43,692,708
Canada's loans.....	272,937,982	351,408,629
Canada's canal traffic (tons).....	46,952,605	51,319,426
Military force.....	63,362	72,230
Canada's savings.....	1,067,476,264	1,081,165,465





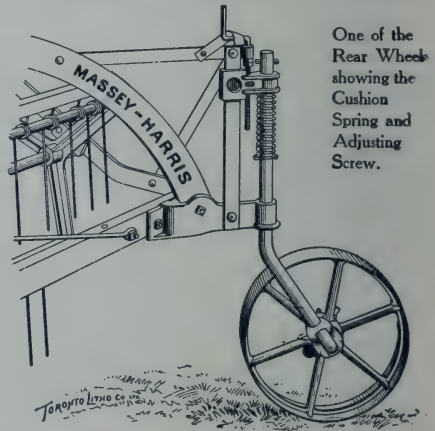
Massey-Harris No. 3 Side Rake and Tedder



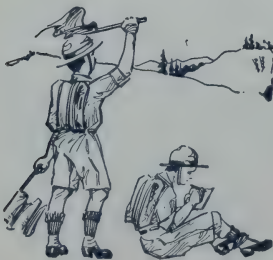
Two machines in one—saves the cost of one machine, the time required for unhitching and re-hitching when using two separate machines, and the space required for storing an additional machine.

The Angle Steel Frame is strong and well trussed; Wheels have wide Tires and liberal Traction Spuds; the Castor Wheels are adjustable for height and have Coil Springs to lessen the jar.

Gearing is very simple; one Lever is used for putting the Raking Cylinder in gear either forward or backward,



One of the Rear Wheels showing the Cushion Spring and Adjusting Screw.



CANADIAN MERCHANT MARINE.

Canadian shipping, sea-going and coastal, in 1913, greatest in its history. Doubled in ten years.

Total vessels, arrived and departed, 1913, 276,273; tonnage, 131,494,496.

Canada had 100 vessels engaged in grain-carrying trade, season of 1913, with capacity of 1,750,000 bushels. Two thousand three hundred men employed.

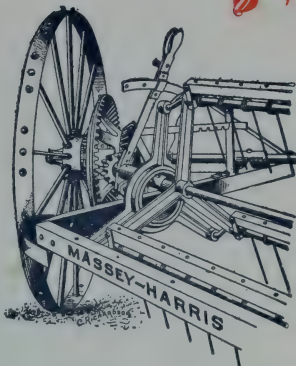
Massey-Harris No. 3 Side Rake and Tedder.



the backward motion having the higher speed for tedding; another Lever adjusts the angle of the Teeth.

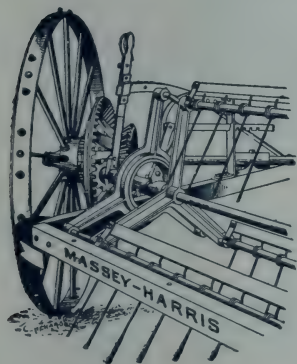
The Raker Teeth are made flexible by means of a coil in each. They draw straight out of the hay as they leave it.

The motion of the Teeth when raking is easy but positive, their action being very similar to the work of hand rakes, handling the hay gently, without beating or threshing.



The Drive Mechanism set for Raking.

Made in two sizes:—9½ ft. Cylinder, which is the standard width, and 10½ ft. Cylinder, *which is intended for raking beans*, the extra width allowing turning around without trampling down the beans.



When desired, this implement can be supplied as a Side Rake only which at any time can be converted into the combination machine.

As a Tedder

This implement is a Great Success.

The Hay is thoroughly stirred and left in the best possible shape for rapid curing.

The Drive Mechanism set for Tedding.

Changed from Rake to Tedder in an instant.

Canada has moved from 10th to 9th place among Maritime nations. Registered vessels, 8,380, of 836,278 tons, employing 42,490 men and boys; 420 vessels added to list in 1912.

Canada has 2,131 registered steam vessels. Gross tonnage, 546,320.

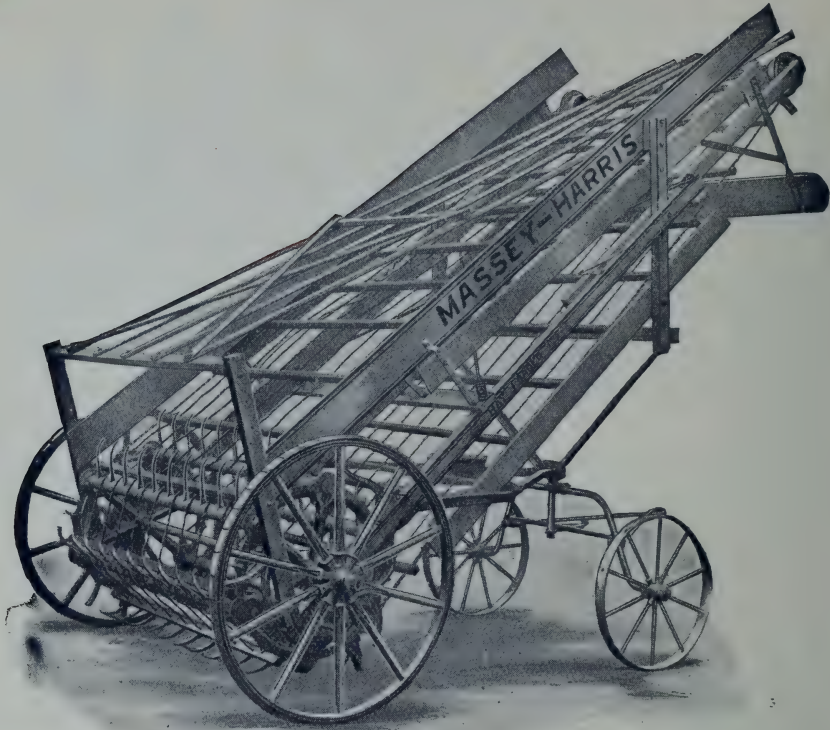
Only 10 per cent. of Canada's foreign trade is carried in Canadian bottoms; the rest by British and foreign ships.

Canada's steamship subventions and mail subsidies vote, 1913-14, \$1,916,934.





Massey-Harris Hay Loader



A Windrow Loader, usually used in connection with Side Delivery Rake, although it will load from any windrow.

The Framework is made of the best seasoned hardwood, held together by Steel Brackets. We have recently added two round Steel Braces which cross in the form of an X on the underside of the Frame, adding greatly to its rigidity. These Braces are adjustable—the Frame can be readily squared up and kept in that position.

CANADIAN CANALS.



Canada's canal traffic, 1913, highest on record, 51,319,426 tons of freight, as against 46,952,605 in 1912.

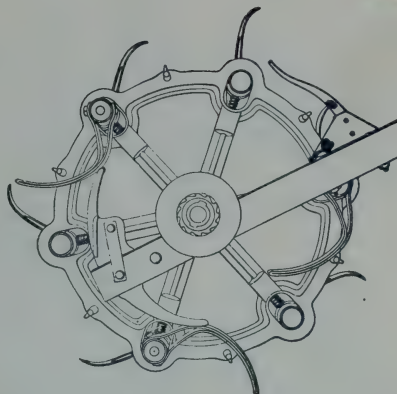
Soo Canals freight tonnage: 1913, 42,696,143. Nearly one-half through Canadian canal. 1912, 39,000,000. Welland Canal, 1913, 3,000,000; 1912, 2,000,000. St. Lawrence Canals: 1913, 4,000,000; 1912, 3,000,000. Canadian Soo Canal carries 83 per cent. of all-canal traffic.

Massey-Harris Hay Loader



The Gathering Drum is 5 ft. 6 in. in length and has 60 Malleable Teeth arranged on six Roller Bars. These Bars are so controlled that the Teeth enter the hay in the same manner as the tines of a pitch fork and hold it securely until it is taken up by the Carrier.

A Cam Device turns the Roller Bars positively to such a position that the Teeth draw straight out of the hay without a chance of catching on the Carrier Slats or holding on to the hay.



Each Roller has Steel Springs at both ends to relieve the jar when an obstruction is encountered, and also to allow for an unusually large volume of hay.

Wheels are well constructed, are amply strong and are provided with Traction Lugs. Both are drivers.

The Carrier delivers the hay well onto the load so it can be readily placed as desired. Tension of the Carrier can be easily regulated by means of a Crank at each side.

An Adjustable Apron is attached to the upper end of the Frame, just below the returning Carrier, which is especially useful when loading in windy weather as it prevents the hay dropping off or being dragged down by the Carrier. An effective windbreak prevents the hay being blown off while passing up to the load.

This Loader is regularly fitted with Forecarriage which takes all the forward weight of the Loader, so that the Loader can be easily attached to the Wagon, the Loader follows the Wagon better and can be more easily moved about. The Axle of the Forecarriage is so pivoted that either Wheel may pass over uneven ground without straining the machine.

Traffic through Soo Canals over twice as much as through Suez Canal.

Canada's Canals first built for 8 feet of water; next increased to 14 feet; further increase to 24 feet underway.

Georgian Bay Ship Canal would reduce distance from Georgian Bay to Montreal to 430 miles (thus saving two days)—300 miles less than present route via Lake Erie and St. Lawrence.

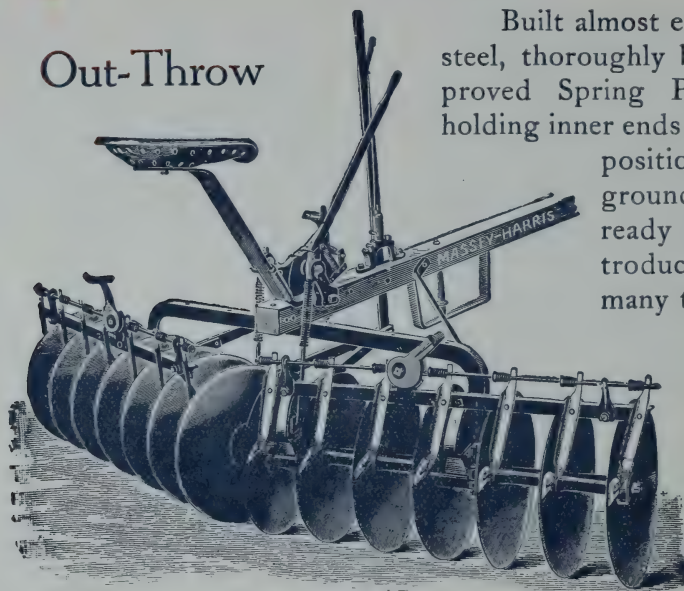
\$550,000 spent on survey of Georgian Bay Canal.





Nos. 8 and 9 Disc Harrows.

Out-Throw



Built almost entirely of high-grade steel, thoroughly braced, and with improved Spring Pressure Device for holding inner ends of Gangs in working position in hard and uneven ground, they met with ready favor when first introduced and there are now many thousands in use and thousands are sold each year.

The Arch is of heavy Angle Steel, strongly braced, and both the Arch and Braces are re-

inforced at the points where they meet, forming an exceptionally strong Frame.

The Discs are mounted on a heavy, square Steel Bar, threaded at the end, and provided with a large malleable nut which is securely locked by means of a Spring Cotter, affording no possibility of the Discs coming loose.

All Discs are made in our own factory, which is sufficient guarantee of their high quality.

The Cleaner Scrapers are made of Steel and each is provided with a Coil Spring, giving ample flexibility.

All the Scrapers on each Gang are controlled by a convenient eccentric Foot Lever by means of which they can be applied with any pressure or locked entirely clear of the Discs.



New Welland Canal to cost \$55,000,000, and to be built in five years. Work now under way.

Lachine Rapids first run by a steamer, the "Lord Sydenham," in 1840.

Canada plans to enlarge Soo Canadian Canal to depth of 31 feet, part of ultimate plan for a 30-ft. channel from the Atlantic to the head of Lake Superior, converting the interior of the country into a great ocean highway.

Nos. 8 and 9 Out-Throw Disc Harrows



Pressure Springs hold the inner end of Gangs to their work, and ensure perfect work.

They also prevent damage to the machine from striking obstructions and save both team and driver from sudden shock.

The Springs are entirely independent in their action although both are controlled by one powerful Hand Lever. This Lever makes it an easy matter to apply any required pressure.

The Gangs are flexibly mounted on ends of the Arch and readily conform to uneven surfaces of the ground, as shown in cut.



Showing Flexibility of Gangs.

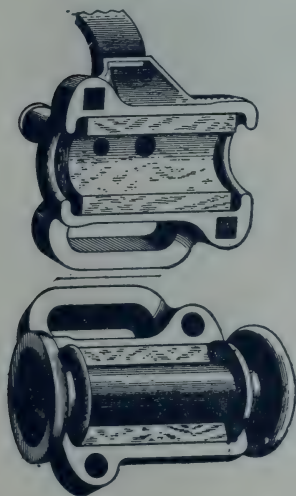
One end of either Gang may rise to pass an obstruction while the balance of the Harrow remains at work.

The Bearing surfaces are oil-soaked Hard Maple which have proven to be more durable than iron, run easier, and when finally they become worn can be easily and cheaply replaced.

Self-Closing Spring Oil Cups which cannot get lost, afford an easy means of oiling, and prevent dirt and dust mingling with the oil and cutting out the Bearings.

Other features are:—Low Hitch—no Side draft—easily taken apart for storing—Weight Boxes on special orders.

The No. 8 has twelve, fourteen or sixteen 16-in. Discs; the No. 9 has twelve, fourteen or sixteen 18-in. Discs.

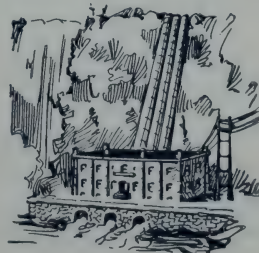


CANADIAN WATER POWER AND ELECTRICITY.

Canada possesses a larger amount of potential water power than any country, twice that of United States.

Canada's estimated 16,600,000 horse power is equal to annual production of 367,000,000 tons of coal.

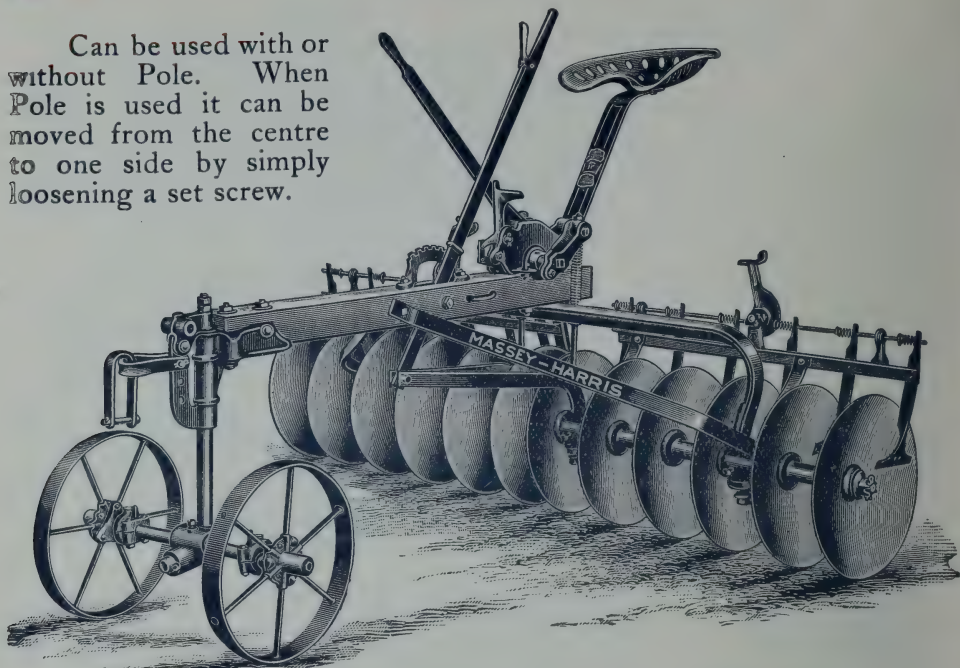
Canada has developed 1,016,521 horse power from water power (per Commission of Conservation estimate).





Massey-Harris Forecarriage

Can be used with or without Pole. When Pole is used it can be moved from the centre to one side by simply loosening a set screw.



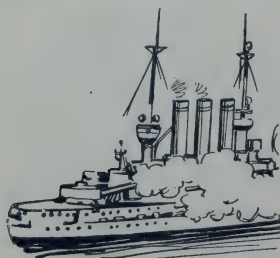
When this Forecarriage is used with a Disc Harrow, all side draft, neck weight and whipping of the Pole are overcome, the draft is made much lighter, and turning corners becomes an easy matter for, instead of PUSHING it around in an exceedingly awkward manner, your horses PULL the machine around—it turns as easily as a wagon.

The Pivoted Axle allows Wheels to adapt themselves to uneven ground.

Hitch is adjustable to suit any team without affecting height of Pole.

Wheels have heavy oval-shaped Spokes of High Carbon Steel, Malleable Hubs, Removable Bushings with Screw Oil Plugs, Oil Chamber, and Dust-proof Sand Caps at inner end with oil hole.

These Wheels will run farther with less oil than any other.

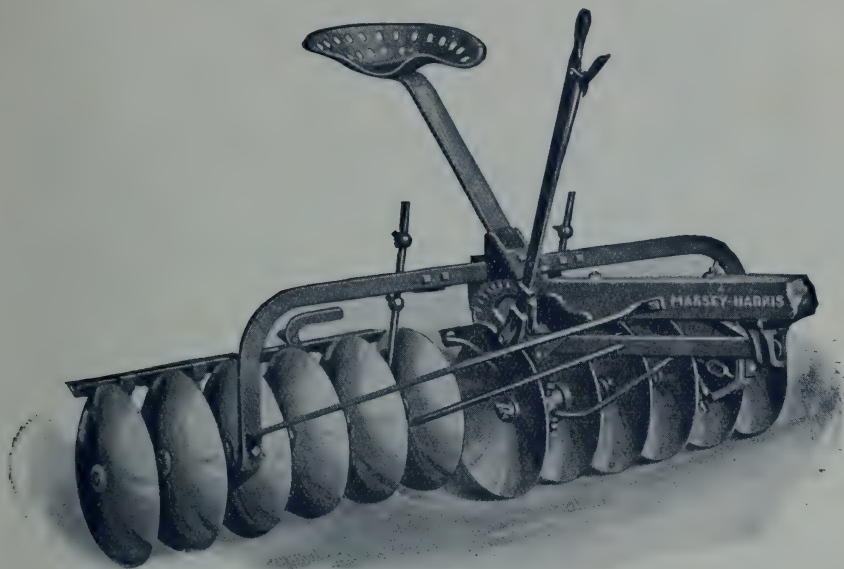


Two proposed power schemes, on St. Lawrence River between Cornwall and Montreal, would develop 1,800,000 horse power.

Ontario Hydro-Electric Commission line: Total length of 110,000-volt line, 281 miles; total number of steel towers, 3,040; total weight of steel towers, 6,200 tons; total length of cable used, 1,000 miles.

Hydro-Electric Commission cost, about \$6,000,000. Serves 60 municipalities in Ontario, up to December, 1913.

Massey-Harris Nos. 1 and 2 In-Throw Disc Harrows



When an In-Throw Disc Harrow is preferred, the No. 1 or 2 will be found to admirably meet the requirements. The No. 1 has 12 16-inch Discs and the No. 2 has 14 16-inch Discs; in other respects they are the same. The angle of the Gangs can be readily changed by means of a convenient Hand Lever.

Simple but effective Cleaner Scrapers enable the operator to clean the Discs and so always do good work in any soil.

Can be furnished with or without Weight Box; the Weight Box is easily attached and removed.

Light draft is secured by means of the easy-running Bearings which are as near dust-proof as it is possible to make them.

MISCELLANEOUS.

Canada will have the longest bridge span in the world at Quebec.

Canada has one of the largest single canal locks in the world, at Sault Ste. Marie.

Canada has the largest nickel mines in the world.

Canada has the richest silver-nickel-cobalt deposits in the world, at Cobalt.





Massey-Harris Orchard Disc Harrow



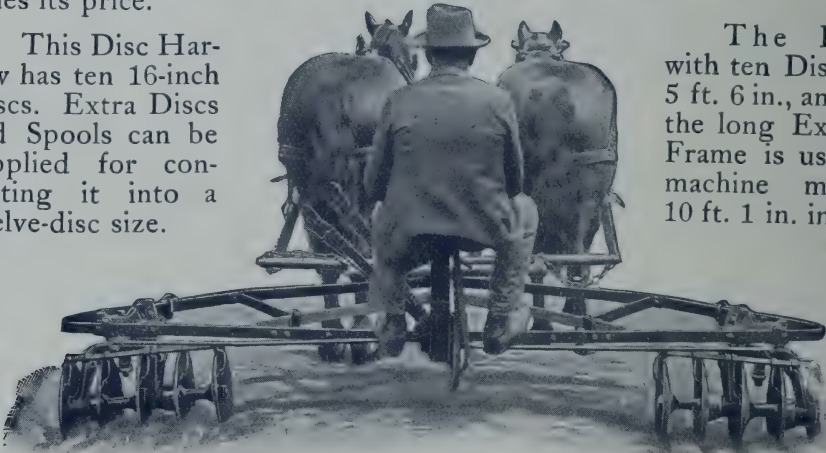
It is reversible—covers the roots or not, as you wish. The Gangs are interchangeable in their position on the Frame so as to throw the soil to or from the trees and vines.

It is adjustable to any depth, in the middle or at the ends, by means of Gang Hinges. Levers adjust each Gang separately to any angle, regulating the amount of dirt thrown. In grape cultivation the Massey-Harris cultivates all of the ground. A Plow cannot do this. It is a good side-hill Harrow.

The Steel Frame is in one piece. Strong arches or yokes support the Gangs; separate Bearing-Boxes take up the friction. We furnish as an extra attachment, a Steel Extension Frame. With it the operator can cultivate under the trees, close to the trunks, and the horses do not interfere with branches or injure the fruit. The Extension will save many times its price.

This Disc Harrow has ten 16-inch Discs. Extra Discs and Spools can be supplied for converting it into a twelve-disc size.

The Harrow with ten Discs cuts 5 ft. 6 in., and when the long Extension Frame is used, the machine measures 10 ft. 1 in. in width.



The largest zinc smelter in the world is at Frank, Alberta.

The thickest known coal seam in the world—47 feet—has been found at Stellarton, Nova Scotia.

Canada has one of the highest tides in the world—59½ feet, in Noel Bay, Bay of Fundy.

Canada has the largest herd of pure-bred buffalo left in the world, of over 1,000.

Canada has the most prolific and extensive sea fisheries in the world.

Massey-Harris Harrow Cart



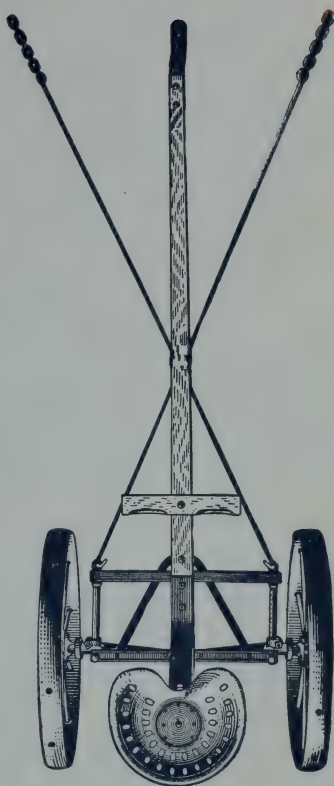
The simplest and most substantial Harrow Cart on the market.

The Frame is practically all Steel and has been proved to be amply strong.

The Steel Axles are of good size and can be depended on not to bend or break.

The Spring Seat will be appreciated by the driver and is so placed that the Cart always balances perfectly.

Wheels are high and have Wide Tires—they run easily in soft ground and keep you up above the dust. They are the strongest Wheels ever put on an attachment of this kind—each has twelve large oval Spokes riveted into the Tire, and the inner end firmly clamped between the two parts of the Malleable Hub, the Hub extending well out on the Spokes. Wheels have Removable Sleeves. Outer end of Sleeve has Screw Oil Plug and the inner end is provided with a Collar which turns in a Dust-proof Sand Cap with oil hole.



These Wheels will run longer and with less oil than any other style of Wheel.

The Cross Rods control the Wheels perfectly at all times. No Foot Trip to operate—absolutely automatic control under all conditions.

CANADA'S EXPANSION IN TEN YEARS.

YEAR ENDED DEC. 31.	TOTAL IMPORTS	TOTAL EXPORTS
1902.....	\$209,169,481	\$219,082,938
1912.....	645,547,152	378,093,990
YEAR ENDED DEC. 31.	BANK CLEARINGS	CUSTOMS.
1902.....	\$2,538,583,771	\$ 34,559,435
1912.....	9,143,196,764	109,190,772





Massey-Harris Drag Harrows

Spring-Tooth Harrows—3 Sizes

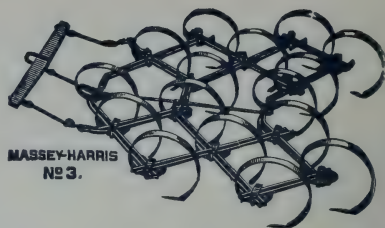
Made with either Steel or Wood Frames. The Steel Teeth are made by our own special process.

No. 1 Steel Frame has 12 Teeth.

No. 3 Steel Frame has 16 Teeth.

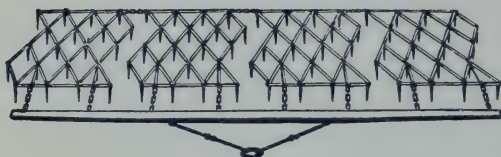
No. 4 Steel Frame has 18 Teeth.

Wood Frame Spring-Tooth Harrows are made in two sizes; 16 and 18 Teeth.



No. 6 Spike-Tooth Drag Harrow—5 Sizes.

Made of Steel in Sections of 20 Teeth.



2 Sec., 40 Teeth, 6 ft. 6 in. wide.

3 Sec., 60 Teeth, 10 ft. wide.

4 Sec., 80 Teeth, 13 ft. 6 in. wide.

5 Sec., 100 Teeth, 17 ft. wide.

6 Sec., 120 Teeth, 20 ft. 6 in. wide.

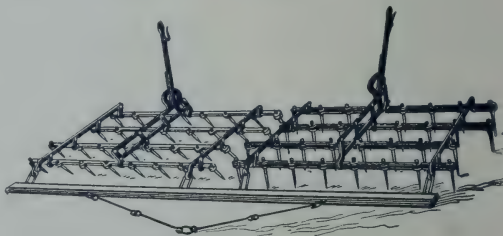
No. 8 Spike-Tooth Lever Harrow—3 Sizes.

2 Sec., 64 Teeth, 9 ft. 8 in. wide.

3 Sec., 96 Teeth, 14 ft. 6 in. wide.

4 Sec., 128 Teeth, 19 ft. 4 in. wide.

The Teeth can be set perpendicularly or slanting backwards or forwards. By using the Lever the Teeth can be freed from weeds.



MASSEY-HARRIS No. 10



No. 10 Spike-Tooth Lever Harrow—3 Sizes.

9 Sec., 54 Teeth, 10 ft. 9 in. wide.

11 Sec., 66 Teeth, 13 ft. wide.

13 Sec., 78 Teeth, 15 ft. 3 in. wide.

This Harrow excels on rough ground or land with furrows or ridges. It is flexible but very strongly built.

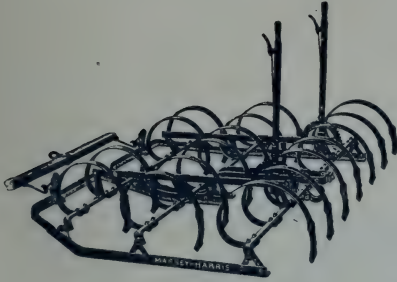


In ten years Canada's Imports trebled; Exports increased by 73 per cent.; Bank Clearings increased 350 per cent., and Customs revenue trebled.

Average percentage of duty collected on all goods entered for consumption, both dutiable and free, 17.03, as compared with 16 per cent. in 1911-12, and 15.87 for 1910-11.

Canada's trade, 9 months, April-December, 1913, increased 10 per cent. over same period in 1912.

Masey-Harris Drag Harrows



No. 14 Spring-Tooth Lever Harrow

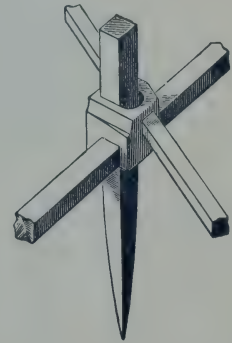
3 Sizes—10, 15 or 17 Teeth.

The 10-Tooth size is in one Section and can be furnished with handles for vineyard work when so ordered.

No. 15 Spike-Tooth Harrow.

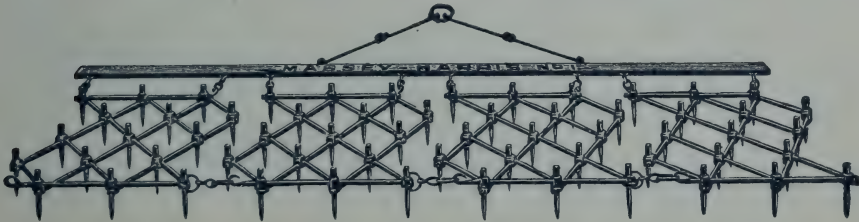
Bulls are $\frac{5}{8}$ in. Square Steel—Cross Bars are $\frac{1}{2}$ in. Square Steel.

The Square Tapered Steel Teeth are driven through the Malleable Clips as shown herewith, thus retaining the full strength of Bulls and Cross Bars—the simplest, strongest and most reliable form of fastening possible.



Furnished complete with Draw Bar and with Connecting Chains between the Sections in the following sizes:

30 Teeth, 2 Sections—cuts 6 ft.	60 Teeth, 4 Sections—cuts 12 ft.
45 Teeth, 3 Sections—cuts 9 ft.	75 Teeth, 5 Sections—cuts 15 ft.
90 Teeth, 6 Sections—cuts 18 ft.	



A DAY'S WORK IN THE HARVEST FIELD.

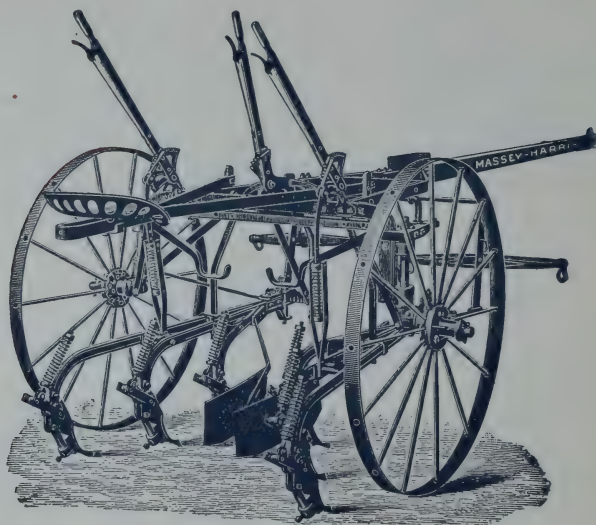
According to figures compiled by the Department of Agriculture, a day's work in the harvest field for a 5 ft. Binder drawn by three horses is 9.26 acres and for a 6 ft. machine, 10.96 acres. A 7 ft. machine drawn by four horses, harvests 15.24 acres while an 8 ft. machine will cut and bind 18.19 acres.

There is an area of nearly 25,000,000 acres in Canada devoted to raising grain of various kinds. To harvest this would mean about 1,650,000 days' work for a 7 ft. Binder, which gives one some idea of the very large number of Binders required to harvest the crop within the short time in which it must be done—probably the number would be well in excess of 200,000.



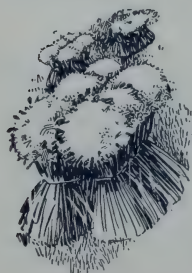


Massey-Harris No. 5 Corn Cultivator



Built almost entirely of Steel: has high arched Axle and is mounted on low Wheels which are exceedingly strong, and have re-inforced Hubs and removable Boxes. Wheels are mounted on Pivot Axles which are connected to Foot Levers enabling the driver to swing the Wheels to either side. Gangs are of I-Beam Steel and have a simple, adjustable connection to Frame. Teeth are Double Pointed and reversible; each has a Safety Spring Trip. Side Levers apply pressure and raise the Gangs; Centre Lever adjusts distance between the Gangs.

The Hitch is Adjustable, the Doubletree Bar being of Steel. Seat is adjustable to suit the operator.



CANADA'S 1914 CROP YIELD COMPARED WITH THAT OF 1913.

The following figures, taken from the last estimate given out by the Census and Statistics Office, Ottawa, show the yields of the leading grain crops of Canada for the present year and for previous years. There is a total shortage of 50,000,000 bushels in wheat yield as compared with 1913. The estimated yields per acre for wheat are for Spring wheat only:—

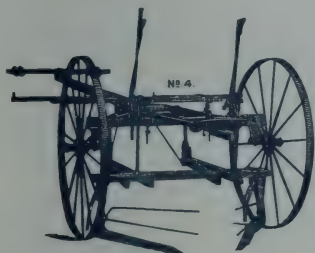
	1914	1913	1910-13 Av. yield for 4 years.	1914 Yield per acre.	1913 Yield per acre.	1910-13 Av. yield for 4 years.
	Total yield. Bushels	Total yield. Bushels	Bushels	Bushels	Bushels	Bushels.
Wheat . .	158,223,000	231,717,000	204,712,000	15.	20.81	19.2
Oats . . .	311,426,000	404,669,000	351,246,000	32.5	38.7	36.3
Barley . .	34,491,000	48,319,000	42,745,000	24.7	29.9	28.5
Rye . . .	2,258,000	2,300,000	2,189,000	18.	19.3	17.8
Flax . . .	7,533,000	7,539,000	14,497,000	8.3	11.3	11.5

For the three Western Provinces the estimated yields for 1914 are: Wheat, 139,672,000; oats, 160,796,000; barley, 20,320,000; rye, 515,000, and flax, 8,962,000 bushels.

Massey-Harris No. 4 Corn Cultivator



A first-class Corn Cultivator which can be furnished with a Bean Harvester Attachment or a Centre Section for converting it into a Field Cultivator.



As a Bean Harvester

Has strong Steel Frame; adjustable tread; Wood or Steel Wheels; both Hand and Foot Lift; Seat is adjustable; Teeth are of Spring Steel with reversible Steel Points.

When cultivating small corn, Shields or Fenders protect the plants.

The Sections work independently of each other and are guided by the feet of the operator.

FINANCIAL FACTS.

"Let Canadians guard very jealously the reputation they have built up and the confidence they have inspired in matters of finance."

— Lord Strathcona.

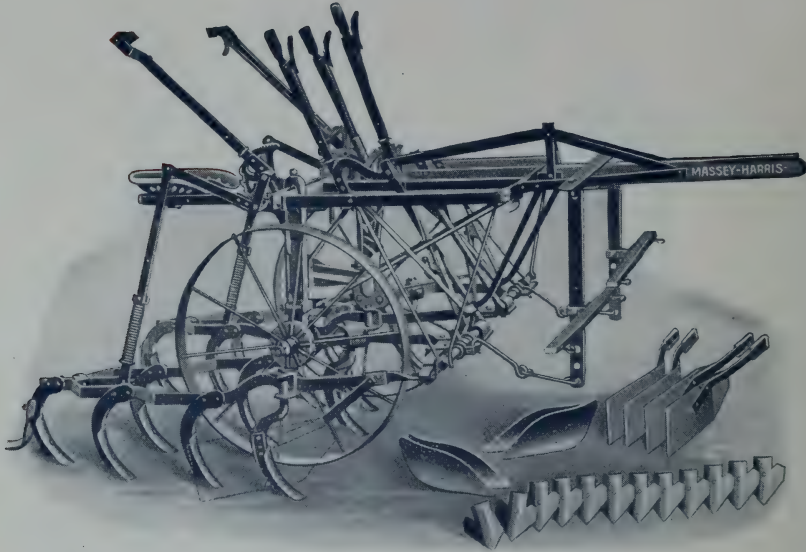
Canada's savings: Deposits, in chartered and savings banks, \$1,081,165,465; in loan and building societies, \$33,235,992; total of \$1,114,301,457, or over \$150 per head.

Canada's foreign loans, 1913, were the largest in her history. E. R. Wood's estimate: \$351,408,629, viz., 72.6 per cent. British, 14.43 per cent. American, 12.97 per cent. Canadian.





No. 8 Two-Row Corn Cultivator



This Cultivator is a great time and labor saver, for it successfully cultivates two rows at a time, thus reducing labor one-half, and expense in the same proportion.

It is easily guided in crooked rows by the feet of the operator, and either gang may be easily adjusted for widening or narrowing rows by a convenient Hand Lever, as shown in cut on opposite page.

By simply moving this Lever, the Gang is adjusted for rows from 28 to 44 inches apart. Nothing could be simpler or more effective than this adjustment for rows of irregular width.

The Cultivator is built almost entirely of steel, making a strong but light machine. The Steel Wheels have Malleable Hubs fitted with Removable Bushings or Sleeves.



United States investments in Canada have increased from \$417,000,000 in 1911 to nearly \$600,000,000.

Up to January 1st, 1913, 175 U.S. companies have established themselves in Canada, involving investment of \$279,000,000.

Canada's receipts, 1912-13 : Consolidated fund, \$168,689,903; expenditure, \$112,059,537. Surplus, \$56,630,366. Capital expenditure, \$32,396,816, making total of \$145,000,000.

Canada's receipts, 1911-12 : Consolidated fund, \$136,108,217; expenditure, \$98,161,440; surplus, \$37,946,776. Capital expenditure, \$30,939,575.

No. 8 Two-Row Corn Cultivator



The width of tread is adjustable—the Wheels may be adjusted from 32 to 52 inches apart.

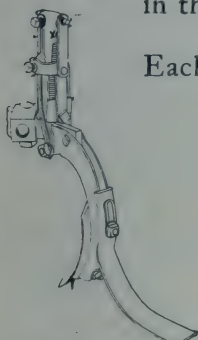
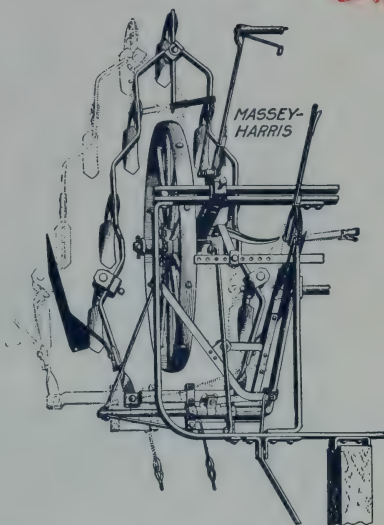
The Gangs are easily raised and any required pressure readily applied by the improved Hand Levers which have reverse motion—pull back to raise the Gangs.

The centre Lever enables the operator to level the machine or tilt it forward and cause the front Teeth to penetrate deeper.

The high Arch gives plenty of clearance in tall corn.

Low hitch takes weight from horses' necks.

The Seat is adjustable, both up and down and forward and back, enabling the driver to balance the machine and also to arrange the Seat in the most convenient and comfortable position.



Spring Trip
Furnished on Special
Orders.

Each Cultivator is furnished with the following equipment:

- 14 Reversible Steel Points:
- 14 5-in. Thistle Cutters.
- 2 Pairs Hillers.
- 2 Pairs Shields or Fenders.

All the Standards for Teeth have Break Pins, and the four front ones may be adjusted up and down and may be swiveled as desired by simply loosening a set screw. Shields are adjustable in height and are pivoted so that they may pass over clods and other obstructions.

Government revenue, consolidated fund, calendar year 1913, \$127,571,762; expenditure, \$75,987,925; and on capital account, \$40,828,051, or total of \$116,816,877.

Main estimates, 1914-15, \$190,735,176.

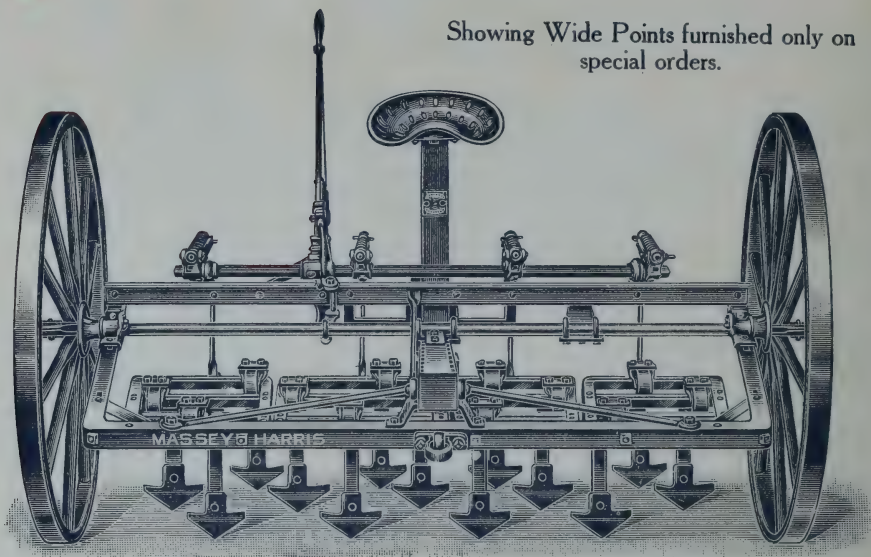
Canada's gross debt, Dec. 31st, 1913: \$516,714,649; net, \$303,562,104, or \$40 per head of population. Increase in year, \$466,909.

Canada issued, 1912-13, \$39,749,000 in Dominion Notes.





Massey-Harris No. 7 Cultivator



This implement is a great weed killer, and it is much more than that, it thoroughly pulverizes the soil, making it an easy matter for the hair-like roots to get through and increasing the amount of surface on which the plant can feed, at the same time giving the soil a greater capacity for holding moisture and reducing the loss by evaporation. It also aerates the soil, making the mineral matter more soluble and assisting in the decomposition of organic matter.

Much of the success of this Cultivator is due to the method of applying the Spring pressure—the pressure remaining the same when passing knolls or furrows and ensuring uniformity in the depth of cultivation, whether it be deep or shallow.

The Cultivator is nearly all steel, high carbon Angle Steel forming the greater part of the Frame, and Gangs are strongly braced as can be seen by referring to the illustration.



Government annuities issued from Sept. 1st, 1908, to March 31st, 1913: Immediate, 463; deferred, 2,621; total, 3,084; total amount of annuities contracted for, \$612,063.31, for which purchase money of \$1,737,059.71 was received. Number of annuities to Dec., 1913, 3,305; total receipts, \$1,963,036.30.

SIR GEORGE PAISH ON CANADA'S FINANCES.

"From 1907-1913, inclusive, amount of capital raised in London for colonial and foreign countries has been 1,100 millions sterling, or \$5,500,000,000. In this period, the Mother Country



SOUTH AFRICA



NIGERIA



CEYLON



STRAITS SETTLEMENTS



HONG-KONG



JAMAICA



PRINCE EDWARD ISLAND



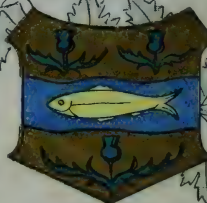
CHANNEL ISLANDS



TRINIDAD



BRITISH GUIANA



NOVA SCOTIA



ISLE OF MAN



ST HELENA



SIERRA LEONE



NEW BRUNSWICK



CYPRUS



BAHAMAS



MALTA



NEWFOUNDLAND

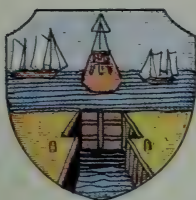


QUEBEC





BRITAIN
DOMINIONS



BERMUDA



TASMANIA



EGYPT



AUSTRALIA



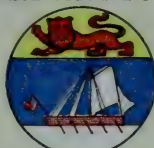
BRITISH COLUMBIA



LEEWARD ISLANDS



HONDURAS



BORNEO



INDIA



ALBERTA



FALKLAND ISLANDS



NEW ZEALAND



ZANZIBAR



SASKATCHEWAN



PAPUA



WINDWARD ISLANDS



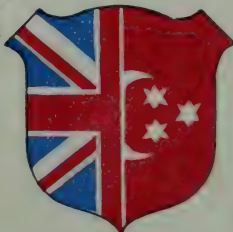
UGANDA



GIBRALTAR



MAURITIUS



SOUDAN

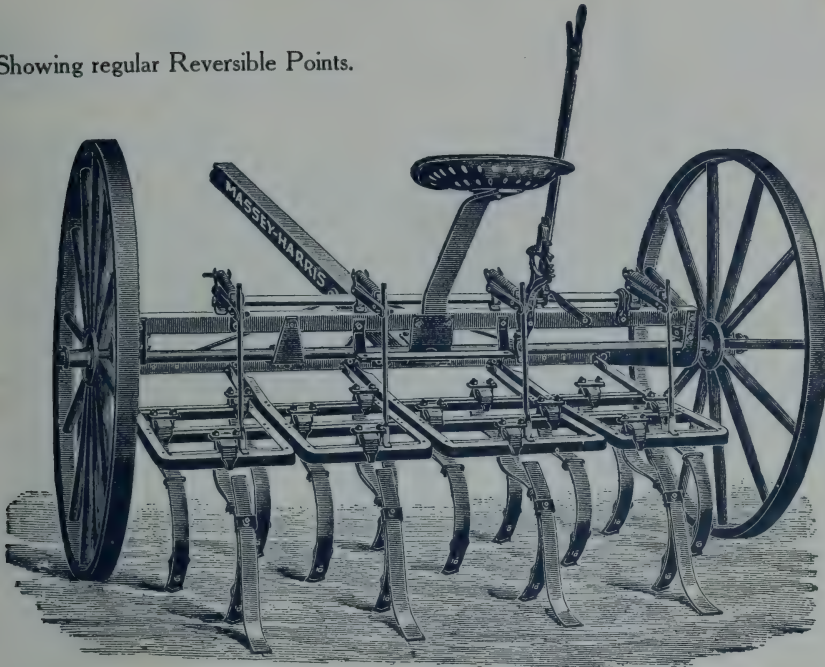
MASSEY-HARRIS CO
LIMITED

issued by

Massey-Harris No. 7 Cultivator



Showing regular Reversible Points.



The Wheels are extra strong, are of large diameter and have broad face, contributing greatly to the easy running of the machine.

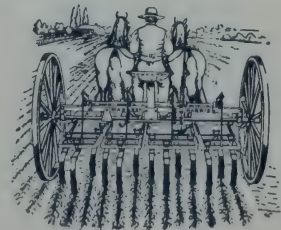
The Steel Axle extending the entire width of the Cultivator materially strengthens the Frame. Wheels have a good bearing on the Axle, overcoming all tendency to "wobble."

Each Section is bent from a single piece of Angle Steel with Angle Steel Cross Bars securely riveted in place.

The Tempered Spring Steel Teeth are attached to the Cross Bars by a simple, adjustable connection, which makes it an easy matter to change angle or pitch of the Teeth with reference to the surface of the ground, and they can also be moved sideways and set at any point on the Cross Bars.

has provided Canada with about 240 millions sterling, or \$1,120,000,000 of capital. This is exclusive of the large amount of private capital sent here for the purchase of land and private investment."

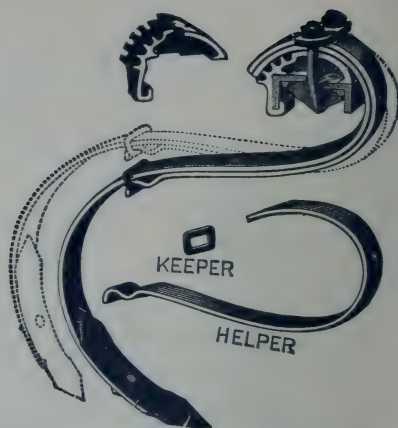
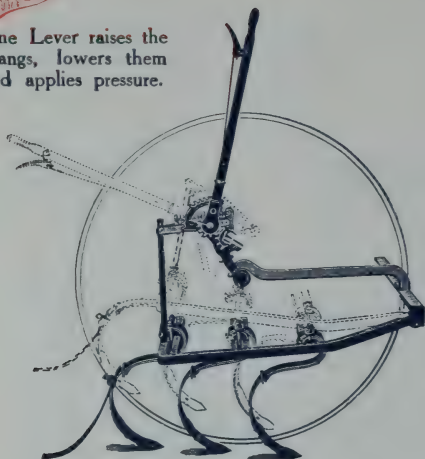
"No colony or foreign country has ever been able to borrow capital on the low terms which Canada has borrowed. Had Canada been outside the Empire, this would not have been done."





Massey-Harris No. 7 Cultivator

One Lever raises the Gangs, lowers them and applies pressure.



The re-inforced Spring Steel Teeth can be easily adjusted as conditions require.

The Teeth are oil-tempered, making them very strong and flexible, and each Tooth is re-inforced by a Spring Steel Helper which increases the flexibility and prevents breakage when striking a stone or root.

The regular Points are reversible, giving double wear.

For certain kinds of weeds the Wide Points will be found advisable. These can be supplied in three different widths: 4 in., 6 in. and 7½ in.

The Pole is adjustable for different sized horses and can be quickly removed for storing, or changed from the centre to one side for using three horses.

An Adjustable Clevis with four height adjustments is provided, enabling the operator to hitch the team in such manner as to entirely overcome neck weight, also allowing for different sized horses.

Either a two-horse or a combined two and three-horse Doubletree can be supplied.

The Seat is re-inforced Pressed Steel on a tempered Steel Seat Spring which fits into a steel holder or socket—can be removed in an instant.

Made in three sizes: 10 Teeth, 4 ft. wide; 13 Teeth, 5 ft. 4 in. wide; and 17 Teeth, 7 ft. wide.



"Including the capital supplied by the United States, largely for industrial purposes, the average rate of interest which the Canadian people are paying for the loans obtained from abroad does not exceed 4½ per cent. In other words, the annual sum which Canada has to provide for interest is about \$27,000,000 a year, a sum which is not greater than the Canadian people can easily provide."

"Canada has now borrowed or secured the investment of considerably over 500 millions sterling of capital from the Mother

Seeder Attachment for No. 7 Cultivator



To supply the demand for an inexpensive means of broadcast sowing, we manufacture a Broadcast Seeder Attachment for use with the No. 7 Spring-Tooth Cultivator described on preceding pages.

The Attachment consists of a Grain Box which can be readily attached and removed. It is fitted with Massey-Harris Feed runs which are famous for uniformity of sowing without crushing or bruising the seed. and has Pressed Steel Scattering Tubes.

An Index Plate on each Box enables the operator to adjust the Feed Runs to any desired quantity. Raising the Teeth out of the ground stops the feed; lowering them starts the seeding.

Note that the Teeth are in three rows, giving good clearance.

Country, and from the United States over 100 millions sterling of capital, or upwards of 600 millions sterling.

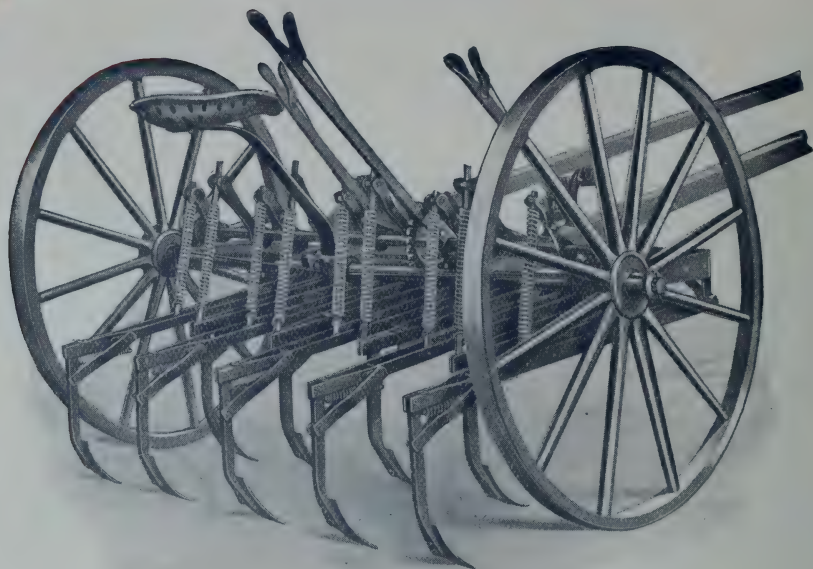
“In fifteen years, over 1,000 million pounds will be invested in Canada, and the population of the country will in that time be doubled.”

“Canada’s rate of increase on receipts and expenditure is probably without parallel in the case of any country at peace and devoting its energies to its nominal business.”





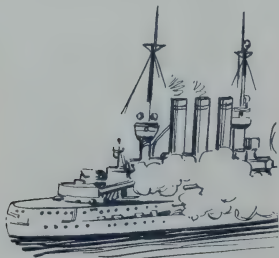
No. 10 Stiff-Tooth Cultivator



This Cultivator is a great weed killer and is very useful in preparing the ground for seeding. It will take out the deep-rooted weeds and is just as effective on weeds requiring shallow cultivation.

Some weeds are best killed by deep cultivation—they must be torn out by the roots and left to be dried out by the sun and wind. By determined and persistent action with this Cultivator, quack grass and other deep-rooted weed pests may be gotten rid of, and at the same time the ground is put in first-class shape for seeding. By adjusting the angle or suction of the Teeth and by applying pressure through the medium of the Pressure Springs, the Teeth may be caused to enter hard soil and cultivate it thoroughly.

MISCELLANEOUS.



Canada is 47 years old, dating from Confederation in 1867.

Canada is 155 years old, dating from British conquest of 1759.

Canada is 379 years old, dating from Cartier's first visit of 1535.

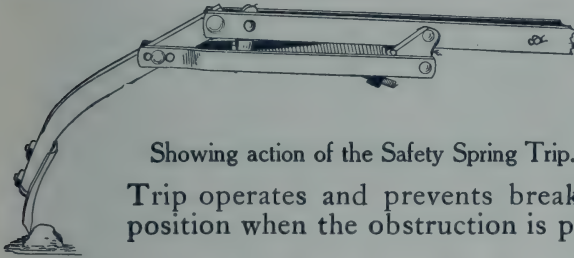
Quebec is 306 years old, Montreal 272, Halifax 166, Toronto 121, Victoria 69, Vancouver 33, Winnipeg 44.

Hudson's Bay Company Company is 247 years old (1667). It is Canada's oldest joint stock company.

No. 10 Stiff-Tooth Cultivator



For cutting thistles and other weeds which are best exterminated by shallow cultivation, we can supply Points 5, 7 or 11 inches in width. These can be set to skim just under the surface, and, by keeping the tops cut down, the weeds are soon smothered out. The wide Points have just the right set to work with the minimum of draft and to leave the ground level.



Showing action of the Safety Spring Trip.
Trip operates and prevents breakage, returning the Teeth to position when the obstruction is passed.

Double Drag Bars give a firm support to the Teeth and hold the Points rigidly to their work unless an obstruction is met with which might cause damage, when the Safety Spring

In a Cultivator of this kind, strength is a very important factor and the Massey-Harris will be found to meet every requirement in this line. The Main Frame is formed of a single piece of heavy Angle Steel with diagonal braces running from each side forward to the centre, thus distributing the draft evenly and preventing any tendency to spring away under a heavy pull.

The heavy Steel Axle extends the full width of the Cultivator and a Truss Rod still further adds strength to the Frame.

One Lever controls the raising and lowering of the Teeth and applying of pressure, and its operation is made easy by a powerful Lift Spring. This Lever is mounted on a large, square Steel Shaft, and Steel Arms are used to connect the Pressure Springs. The Pressure Springs ensure uniform depth of cultivation regardless of uneven ground.

This Cultivator is made in one size only—9 Teeth, cultivating 5 feet wide. It is equipped with two Poles and Three-Horse Hitch. The Poles have Lever adjustment to allow levelling the machine with any-sized horses.

Eleven general elections since Confederation. Seven Premiers of Canada, nine Cabinets and twelve Parliaments.

Canada was the first colony to ask for and receive self-governing powers, and to form a Confederation.

The British North America Act is Canada's Magna Charta.

Canada has nearly 800 legislators, federal and provincial.

Forty-two extradition treaties of Great Britain apply to Canada.

Canada has had 116 Governors-General, 1534-1908.





Massey-Harris No. 4 Hoe Drill



Sowing the seed is a very important matter, as on it depends in great measure the success or failure of the crop. If the seeding is not properly done, perfect weather conditions are of little help, while on the other hand, right sowing means a largely increased yield under favorable conditions, and, in a bad year, may mean the difference between success and failure. Massey-Harris Drills have been used for many years by thousands of progressive farmers and have proven beyond question that they have no equal in Canada.



CENSUS FACTS, 1911.

1911: Rural population, 3,925,502; urban, 3,281,141.
1901: Rural population, 3,349,516; urban, 2,021,799. Increase of rural population in ten years, 17.16 per cent; of urban, 62.25 per cent.

Canada's population to sq. mile, 1.93: Great Britain, 471; Germany, 310; France, 190; United States, 25.

Canada's percentage of population. Rural, 55; urban, 45. United States, 21 and 79.

Massey-Harris No. 4 Hoe Drill

The Massey-Harris Hoe Drill has a strong Steel Frame which holds all working parts in proper relation, ensuring uniformly satisfactory working at all times.

Seed furrows are opened by means of the Hoes which are equipped with Safety Spring Trips.

When a Hoe strikes a root or stone the Safety Spring allows it to yield so as to pass over the obstacle without breakage, and forces its return to working position as soon as the obstruction is passed.

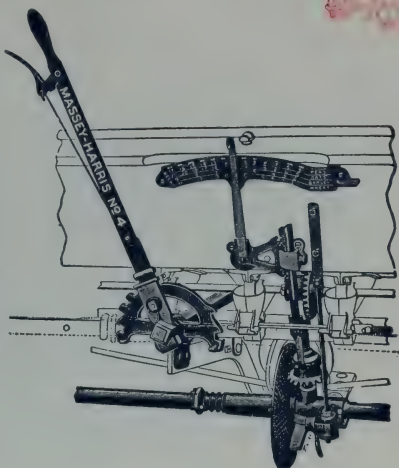
Hoes can be set zig-zag by means of a Lever at end of Hopper.

The Massey-Harris Force Feed Run sows fine or coarse grain uniformly, positively and continuously, without injuring the seed. The top is wide and does not clog; there are two passages, one for fine grain and one for coarse; a revolving Disc carries the grain down through the Run into the Conductor, the quantity being governed by the speed of the Disc. A Spring Index Lever controls the Multiple Gear Drive, giving thirteen changes of feed with each side of the Feed Run.

One Lever controls the raising and lowering of the Hoes, applies the pressure, and starts and stops the feed. This Lever is conveniently located at the rear of the Drill and is of good length, making it an easy matter to raise the Hoes or to apply any required pressure.

Extra pressure can be secured by raising the buckles on which the Pressure Springs rest.

This Drill is made in four sizes: 10, 11, 13 or 15 Hoes. Any size can be equipped with Grass Seed Box which broadcasts in rear of the machine.



Percentage growth of provinces: Alberta, 413; Saskatchewan, 439; British Columbia, 119; Manitoba, 78; Quebec, 21; Ontario, 15; New Brunswick, 6; Nova Scotia, 7; P.E.I., decrease of 9 per cent.

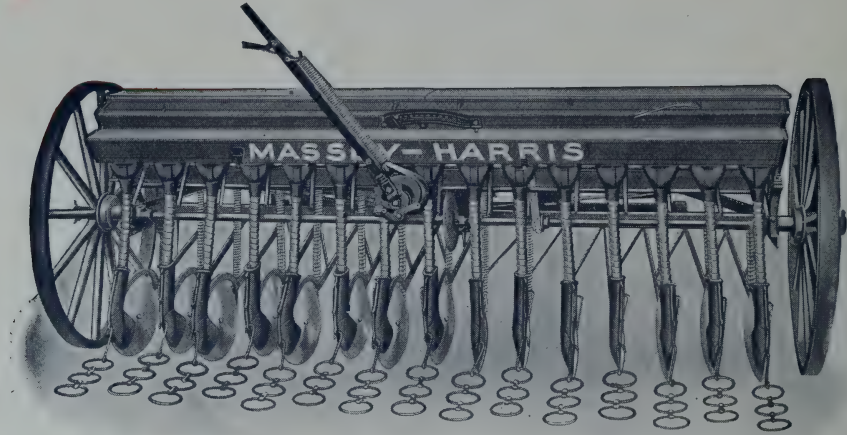
Western Canada population increase, ten years, 174 per cent.: Eastern Canada, 17 per cent.

Estimated 3,000,000 Canadian-born or of Canadian descent in United States.





Massey-Harris No. 5 Disc Drill



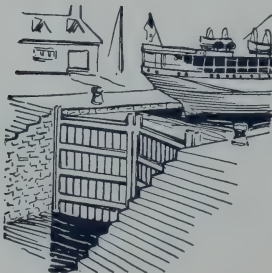
This Drill will be found a most efficient implement in weedy or trashy ground, as the Discs roll over or cut through weeds, roots, etc., without catching or dragging trash, and are not liable to clog.

In general construction it is very similar to the No. 4 Hoe Drill, having the same thoroughly-braced, strongly-trussed, Angle Steel Frame, the positive Multiple Gear Disc Drive with thirteen changes of speed, and the Massey-Harris Force-Feed Runs which give universal satisfaction with any and all kinds of grain.

One Lever at the rear of the Drill controls the raising and lowering of the Discs and applies pressure through the medium of the Pressure Springs.

Raising the Discs stops the feed,—lowering them starts the seeding automatically.

The Grain Tubes or Conductors are made of Spring Ribbon Steel in the form of a spiral. They are strong, very flexible and will give lasting satisfaction.



Next Parliament will have 11 more members ; Ontario losing 4, New Brunswick 2, Nova Scotia 2, P.E.I. 1 ; four Western provinces gain 5 each, giving West one-third of House.

Canada's population now same as that of U.S. in 1813.

Canada's percentage population increase in decade, 34 ; United States, 24.

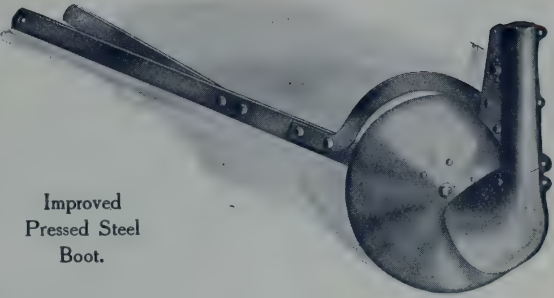
Employed agriculturally, 716,937 ; domestic and personal, 277,755 ; fisheries, 25,054 ; forestry, lumbering, 17,113 ; manufacturing, mechanical, 389,873 ; mining, 36,908 ; miscellaneous, 4,413 ;

Massey-Harris No. 5 Disc Drill



The Furrow Openers are especially suitable for early Spring seeding, as they will not clog in sticky or trashy land. The Discs are all made in our own factory and no better can be obtained. They are very sharp and will cut through the worst of trash. They are set at just the right

Improved
Pressed Steel
Boot.



angle to get the best results. They open the ground to a sufficient depth, and the furrow is wide enough to give every seed ample room to germinate and to give every plant an independent part of the soil from which to draw nourishment. The Discs are 13 inches in diameter and are ground to a keen cutting edge and carefully polished. They are set with a zig-zag of 6 inches.

Improved Pressed Steel Boot.—The Disc Boot is made of Pressed Steel, lighter and stronger than the usual cast-iron Boot, and has the lower part separate so that if it becomes worn from long use in hard or gritty soil it can be replaced at small expense. Owing to the shape of the Drag Bars and Steel Boot, there is a good clearance between the Discs, which is a great advantage in trashy land.

The Boot acts as a Scraper on the convex side of the Disc. The Scraper on concave side has a Spring Shank or Arm, and, when not required, it can be instantly swung to the rear, clear of the Discs.

This Drill is made in three sizes:—11, 13 or 15 Discs, any of which can be fitted with Grass Seed Box.

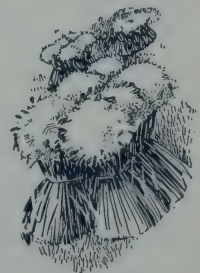
non-productive, 69,201; professional, 94,639; trade and transportation, 234,236.

Occupied dwellings, 1,413,913; number of families, 1,488,353. Average persons per dwelling, 5.096.

Canada's fifth census, taken on June 1st, 1911, by 264 commissioners and 9,703 enumerators, cost \$1,204,614.

Three-fourths of Canada's population is British-born.

British and Canadian-born contributed, out of increase of 1,835,328, 1901 to 1911, 1,380,577, or 74 per cent. Canadian-born contributed



Massey-Harris No. 11 Disc Drill



In some cases a Drill with Furrow Openers 6 in. apart is considered an advantage, and to meet the demand, we are prepared to supply either the Disc Drill described and illustrated herewith, or a Shoe Drill built along the same lines and shown on pages 64 and 65. These

two Drills are identically the same with the exception of the Furrow Openers and these are interchangeable.

The Frame is constructed of heavy I-Beam, specially rolled for the purpose, and heavy Angle Steel, riveted under immense pneumatic pressure, making a Frame of great strength.

The Axles are attached by means of Steel Brackets and turn in self-aligning Bearings. They are set at an angle so as to give the Wheels just the right "pitch" and "gather" to run as light as possible.

The Wheels are 46 inches in diameter, and are built with extra heavy Spokes. Wide Hubs with long bearing on the Axle give great steadiness. The Tires are of Steel, 4 inches wide, which keeps the Wheel from sinking, even in soft ground. Both Wheels are drivers.

The Feed Shaft is divided in the middle, thus enabling the operator to shut off one-half the Drill when desired. Two Levers are provided, each controlling one-half the Drill.

This Drill is equipped with the largest Grain Box to be found on any Drill, thus avoiding the necessity of re-filling so frequently. Being directly over the Axle, the machine balances perfectly, regardless of the amount of grain in the Box. The Cover of the Box is in two parts, each provided with an automatic lock for holding open or closed as desired.

Foot Boards can be supplied on this Drill at a small additional cost.

Made in 3 sizes: 12, 14 or 16 Discs. Any size can be supplied with Grass Seed Attachment.



947,867, or 52 per cent.; natives of British Islands, 394,507, or 21.50 per cent.; other parts of Empire, 13,324, or 0.72 per cent.

Increase in foreign-born of 474,283 comprised 279,392 European-born, 17,366 Asiatic-born, exclusive of Hindus, and 175,781 persons born in United States.

Of ten-year increase, English contributed 562,251, or 30.63 per cent.; Irish, 61,663, or 3.36 per cent.; Scotch, 197,726, or 10.77 per cent.; Welsh, 11,754, or 0.6 per cent.; French, 405,519, or 22.09 per cent.; Germans, 82,819, or 4.51 per cent.; Austro-Hungarians, 110,925, or 6.05 per cent.

Massey-Harris No. 11 Disc Drills

The Disc Boot is made of Pressed Steel, lighter and stronger than the usual Cast Iron Boot, and has the lower part separate so that if it becomes worn from long use in sand or gritty soil it can be replaced at small expense. This is an exclusive Massey-Harris Feature and adds much to the value of the Drill.

The light weight of the Disc Boot is a great advantage when sowing in light loam or sandy soil, and by means of the Pressure Springs any required pressure may be applied to cause the Discs to penetrate hard ground.

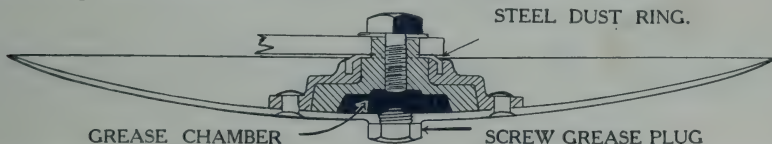
Another point which has received especial attention is the angle of the Discs—they are set at just the right angle to give the best results.

The Discs are made in our own factory, are 13 inches in diameter, and are set with a zig-zag of 6 inches.

Owing to the shape of the Drag Bars and the Steel Boot there is a good clearance between the Discs, which is a great advantage in trashy land.

A Spring-actuated Scraper keeps the Disc clean and can be swung clear of the Disc in an instant if not required. (See dotted lines in cut at left of page).

Covering Chains ensure perfect covering of the seed.



Persons of British origin constituted 54.07 per cent. of total population in 1911, as against 57.03 per cent. in 1901. Proportion of English to total population increased from 23.47 to 25.30 per cent. in ten years; the Irish fell from 18.40 to 14.58; and the Scotch from 14.90 to 13.85 per cent.

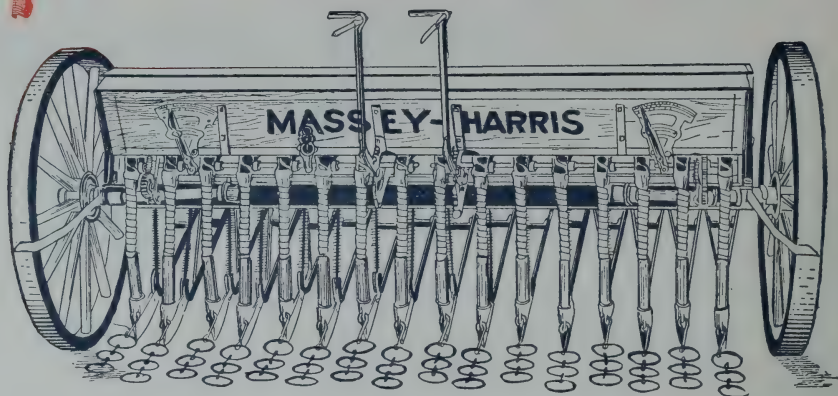
Population of French origin was 28.51 of total in 1911, as against 30.71 per cent. in 1901; the Germans 5.46 per cent. in 1911, as against 5.78 in 1901.

Austro-Hungarians were .34 per cent. of total population in 1901; increased to 1.79 per cent. in 1911.





Massey-Harris No. 11 Shoe Drill

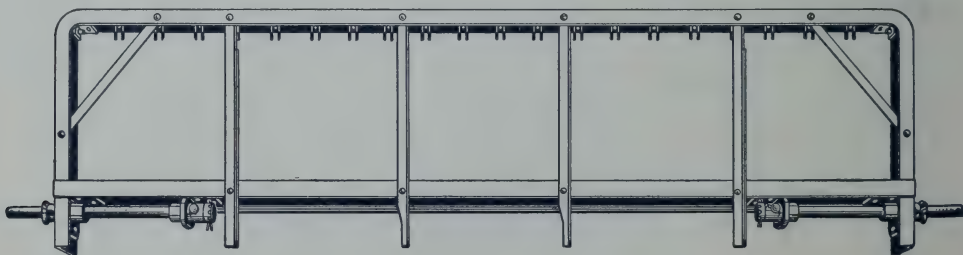


For use in well cultivated, sandy or loamy soil, the Shoe Drill is well adapted.

The Massey-Harris has an exceptionally strong Frame, built of special I-Beam stock and heavy Angle Steel with numerous Steel Braces and Brackets, all securely riveted under immense pressure.

The Axles are attached by Steel Brackets and run in self-aligning Bearings.

The Wheels are 46 inches in diameter, have extra heavy Spokes and 4-inch Tires; they are set with just the right "pitch" and "gather" to run as light as possible.



Japanese, Chinese and Hindus made up 2.13 per cent. of the people in 1911; 1.20 per cent. in 1901.

Canada has 150,000 Jews. Montreal has 50,000; Toronto, 30,000; Winnipeg, 15,000. Arrivals from other countries: 1911, 5,146; 1912, 5,322; 1913, 7,387.

Canadians in United States (census of 1910), Canadian-born or of Canadian parentage, 2,754,615, viz: Canadian French, 932,238 (percentage of increase in ten years, 12.3); Canadian other, 1,822,377 (percentage increase, 11.3).

Massey-Harris No. 11 Shoe Drill



The Grain Box is extra large to avoid the necessity of frequent re-filling. The Cover is in two parts, each provided with an automatic lock which holds it open or closed as desired.

Reliable Feed Runs enable the operator to sow fine or coarse grain in any desired quantity. The Feed Shaft is ample in size and is driven direct from the Axle by Gears.



The Shoes and Pressure Springs.

The quantity of grain sown is easily regulated by moving a Lever on an Index Plate which shows the exact amount sown per acre.

After the grain has been accurately passed through the Feed Run it is carried to the Furrow Openers by Steel Ribbon Spiral Grain Tubes.

The Shoes are of high-grade Steel properly shaped to do perfect work; Double Drag Bars prevent sagging to either side. They are 6 inches apart and set zig-zag.

A new feature is the method of attaching the Pressure Spring Rod, as shown in illustration, applying the pressure at a point well back on the Shoes, holding them to their work under all conditions, while at the same time giving ample flexibility to allow each one to conform independently to uneven surfaces.

Made in Three Sizes : 12, 14 or 16 Shoes.

Out of 346,523 foreign-born males of voting age in Canada, only 135,906, or 39.22 per cent., had, at time of last census, become British subjects within Canada, thus acquiring right to vote.

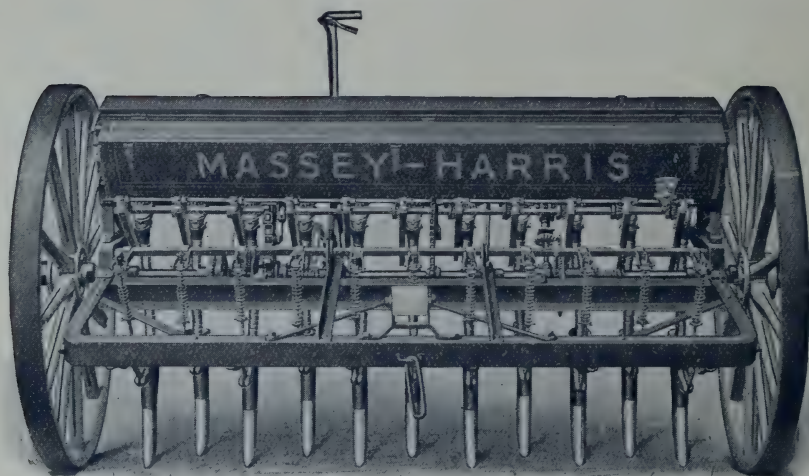
The British-born male population of voting age, including native Canadians, totalled 1,442,618, of whom 382,133 were born in the United Kingdom, and 26,472 in British possessions. Thus the total voting strength in the election of 1911 was 1,987,129. The total number of votes polled was 1,307,528.

One out of every nine in B.C. is an Oriental.





Massey-Harris New No. 12 Grain and Fertilizer Drill



The substitution of Steel for Cast and Malleable Iron has resulted in a machine which is much lighter than other Drills of this type, and, at the same time stronger. The Frame is made of high-grade Angle Steel and has a centre Cross Bar of high carbon I-Beam. The angle is one continuous piece riveted to the I-Beam, and two Angle Steel Bars tie the Frame to the I-Beam and support the continuous Steel Axle as well. The Frame, I-Beam and Angle Tie Bars are riveted together in the most substantial manner, forming a solid Steel Truss Frame for the foundation. The Hopper is mounted on Steel Brackets and is fastened to the Frame by two tie-bolts, making an exceedingly strong and rigid construction and holding all parts in perfect alignment.

The light weight of the Drill, the high, broad-faced Wheels, the fact that the Drill is perfectly balanced carrying the Hopper directly over the Axle, the Bearings being machined out, the Tie Rods giving perfect alignment—these combine to ensure light draft. The Axle Bearings have large Oil Chambers with Spring Oil Cups.

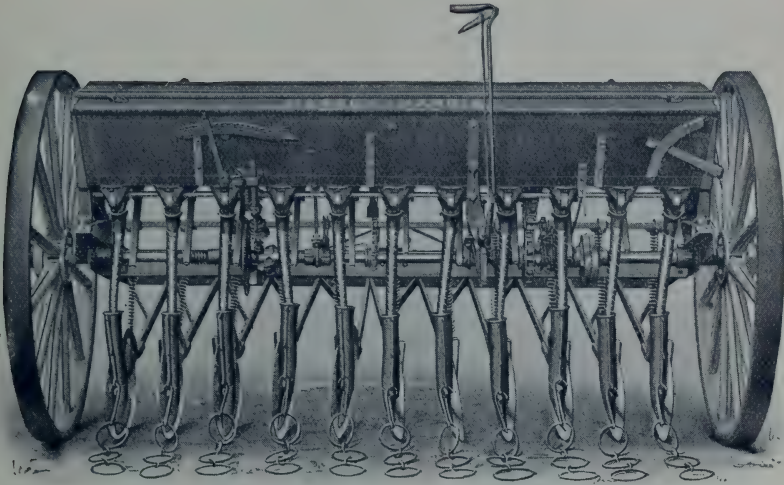
AREA OF CANADA.



“Do you realize how great a country Canada is? If you could pivot Canada upon its eastern seaboard, it would cover the northern part of the Atlantic Ocean, the British Islands, Norway, Sweden, Denmark, Holland, Belgium, the northern part of France, the entire German Empire, and a considerable part of European Russia, and a man who lives in Halifax is a thousand miles farther away from Victoria than he is from London.”

—Right Hon. R. L. Borden.

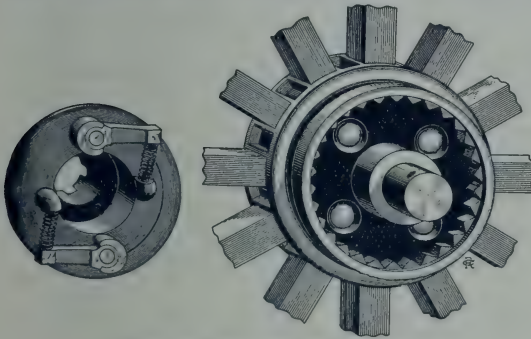
New No. 12 Grain and Fertilizer Drill.



Both Wheels are drivers, transmitting power to the Axle by means of Ratchets outside the Wheels, giving ample traction under all conditions.

Easy change of feed—no extra parts required—This is a feature which will be greatly appreciated by the operator.

The drive for Grain Runs is the same as used for years on several of our Grain Drills, consisting of a Multiple Gear Disc on the Main Axle and a sliding Pinion which, by means of an Index Lever, can be instantly put in mesh with any of the thirteen rows of Teeth in the Gear Disc.



Positive Drive from both Wheels.

The Fertilizer Feed Run is our well-known Star type Force Feed, consisting of Star Wheels revolving in the bottom of the Fertilizer Box.

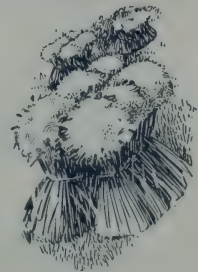
Each feed opening has an Adjustable Gate, and by means

Canada has one-third of area of British Empire.

Canada's area is one-third of that of Africa, and one-fifth of that of Asia.

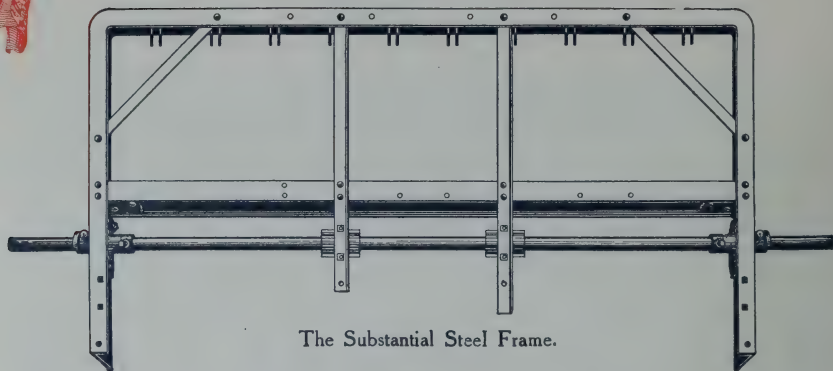
Canada is larger in area than the United States, including Alaska, by 111,992 square miles (Canada, 3,729,664; United States and Alaska, 3,617,673). Canada's area in acres, 2,386,985,395.

Canada is as large as 30 United Kingdoms and 18 times the size of Germany; twice the size of British India; almost as large as Europe; 18 times the size of France; 33 of Italy.





New No. 12 Grain and Fertilizer Drill



The Substantial Steel Frame.

of an Index Lever on the outside of the Hopper the operator can *instantly change the feed openings* and regulate the amount of fertilizer through a range of sixteen different quantities while the machine is in operation; and not only is the operator enabled to adjust the quantity while at work but can also stop and start the Fertilizer Feed independent of the Grain Runs by means of a convenient Hand Lever.

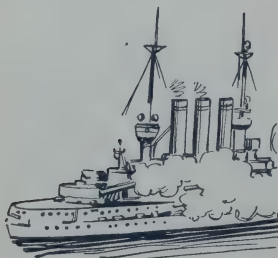
When a greater range of feed is desired than can be secured by this Index Lever, four changes of speed may be secured by means of the Adjustable Drive, making 64 changes of feed. These changes are quickly made and there are no extra parts required. Special Star Wheels can be supplied when it is desired to sow an unusually large amount per acre.

The raising and lowering of the Hoes or Discs throws the entire machine out and in gear.

The purchaser of this Drill has the choice of Hoes or Discs, the two styles of Furrow Openers being interchangeable.

The Hoes are equipped with Double Drag Bars and are provided with Safety Spring Trip which permits a Hoe to spring back and pass an obstruction and return to working position as soon as the obstruction is passed.

Improved Steel Boot for Discs. The Disc Boot is made of Pressed Steel, lighter and stronger than the usual cast-iron Boot, and has the lower



Canada's proportion of population, nearly two per square mile; United States, 25; England and Wales, 558; British Empire (outside of India), 4.

Canada is bounded by three oceans; its 13,000 miles of coast line nearly equal half circumference of earth.

Canada is 3,500 miles by 1,400 in size. The United-States-Canada boundary line is 3,000 miles long; 1,600 by land, 1,400 through water.

New No. 12 Grain and Fertilizer Drill



part separate so that if it becomes worn from long use in sand or gritty soil it can be replaced at small expense. Owing to the shape of the Drag Bars and the Steel Boot there is good clearance between the Discs, which is a great advantage in trashy land. This is an exclusive Massey-Harris Feature and adds much to the value of the Drill.

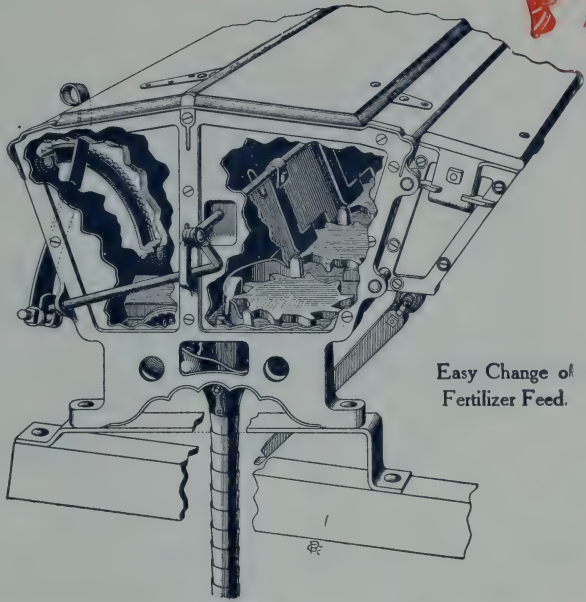
A Spring-actuated Scraper keeps the Disc clean and can be swung clear of the Disc in an instant if not required.

Practically all the parts of the Lifting and Pressure Device are Steel, combining great strength with lightness. The Pressure Arms are of an improved type and any one of them can be removed or replaced by simply taking out one bolt. One Lever applies pressure, raises and lowers the Furrow Openers and starts and stops the feed.

The Grain Tubes are made of Spring Steel in the form of a spiral, the most satisfactory type of Tube and the most durable. They have Steel Tops—a New Feature.

Made in two sizes: 11 Runs and 13 Runs, and with either Hoes or Discs, as desired.

Grass Seed Attachment.—When it is desired to sow grass seed with the grain, a light, effective Grass Seed Attachment can be easily attached. It is driven by Sprocket Chain, and the amount sown is readily regulated by means of an Index Lever. All kinds of grass seed are readily handled by this Attachment.



Easy Change of
Fertilizer Feed.

In 1868, the area of the four provinces entering Confederation was 662,148 square miles; now the Dominion Parliament exercises jurisdiction over 3,729,665 square miles.

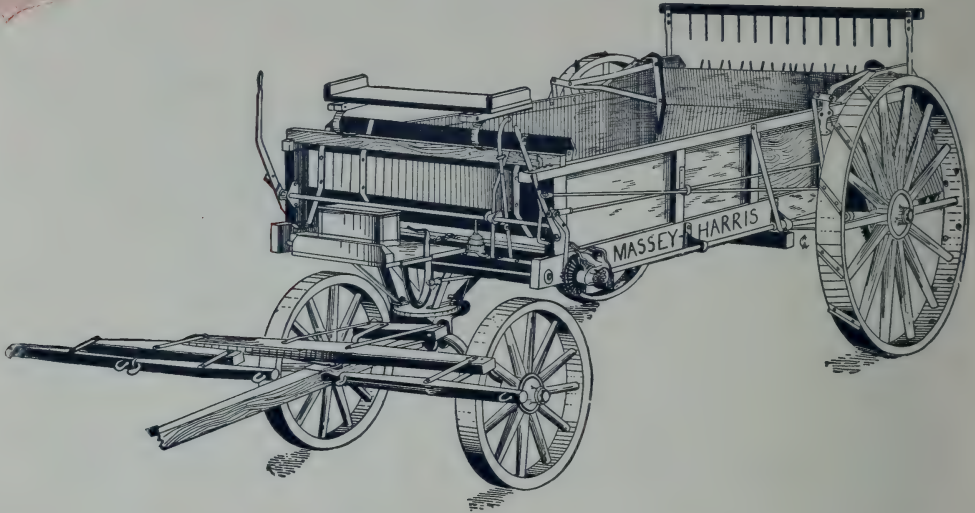
Areas Canadian Provinces in square miles: British Columbia, 357,600; Alberta, 253,540; Saskatchewan, 250,650; Manitoba, 251,832; Ontario, 407,252; Quebec, 706,834; New Brunswick, 27,985; Nova Scotia, 21,428; Prince Edward Island, 2,184.

Prior to the passing of the Boundaries Act of 1912, areas of Manitoba, Ontario and Quebec were: Manitoba, area, 73,732, added, 178,100; Ontario, area, 260,852, added, 146,400; Quebec, area, 351,873, added, 354,961.





Massey-Harris No. 3 Manure Spreader



Important as is the maintainence of the fertility of the soil, many do not give it the attention it deserves. Some allow the manure to remain in the barnyard until it loses much of its value as a fertilizer, others are careless in their methods of applying it and the soil does not receive the benefits it should.

Hand spreading is wasteful, it is expensive and is one of the most hated jobs on the farm. When spreading by hand, it is impossible to apply the manure evenly, nor is it possible to give the land as light an application as has been found to give the best results in most cases.

With a Massey-Harris Manure Spreader a given amount of manure may be made to cover more ground and every bit of its fertilizing value is retained in the increased crops.

The Manure Spreader has made possible the top dressing of field crops, a method of spreading which has been found to give the best results in the majority of cases. The first rain carries the fertilizing

CANADA'S FISHING INDUSTRIES.



Canada has the most extensive and best stocked commercial fishing waters in the world.

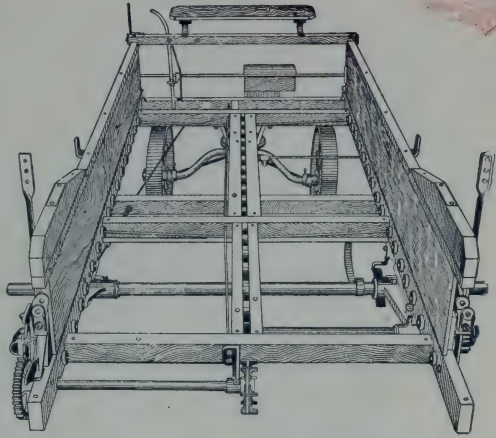
Canada's vast fishery area includes 5,000 miles of Atlantic and 7,000 miles of Pacific coast, and 220,000 square miles of fresh water.

1912-13 was the second greatest fishing year for Canada. Value produced, \$33,389,464; 1911-12, \$34,667,872; being

Massey-Harris No. 3 Manure Spreader

elements down into the soil, directly to the roots of the plants. Also the top coating serves as a mulch to prevent drying out, and, in case of fall-sown crops, as a protection in winter.

Often it is desired to manure a meadow, but it cannot be done successfully by hand, for the result would be very uneven and many chunks would be left to find their way into the hay at haying time. With a Massey-Harris Spreader the result is all that could be desired—the manure is evenly spread and there are no chunks left.



A light coating of manure can be applied to pasture lands by this Spreader without causing the cattle to refuse to graze over it, as would be the result from hand spreading. Many pastures which were about worthless have been reclaimed in this way.

A man or a boy with a Massey-Harris Manure Spreader does the work of four or five men and *does it better*.

A strong Frame which will hold its shape and keep all working parts in proper relation is a very necessary feature in a Manure Spreader. The accompanying illustration gives a good idea of the strength of the Massey-Harris Frame. Selected hardwood is the material: the Cross Bars are carefully mortised into the Side Rails and securely bound together by heavy Truss Rods.

Sills and Cross Bars are riveted at the ends to prevent splitting, and bolts are freely used as can be seen by referring to the illustration, the numerous bolt heads giving a good idea of the thoroughness of construction.

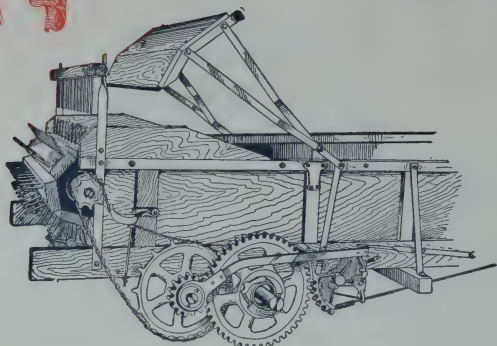
greatest with \$34,667,872; the season of 1912-13 showed a decrease of \$1,278,408, chiefly in Nova Scotia, on account of rough weather.

British Columbia comes first, with \$14,455,488; Nova Scotia, second, \$7,384,055; New Brunswick, third, \$4,264,054; Ontario, fourth, \$2,842,878; Quebec, fifth, \$1,988,241; Prince Edward Island, sixth, \$1,379,905; Manitoba, seventh, \$800,149; Saskatchewan, eighth, \$111,839; Yukon Territory, ninth, \$111,239; and Alberta, tenth, \$51,616.





Massey-Harris No. 3 Manure Spreader



Enclosed Gearing.—The Gears are made extra strong and are protected by Shields which prevent stalks and trash interfering with their free action.

Heavy Wheels with wide Tires—will not sink in soft ground.

Low Front Wheels—Front Wheels turn under the Box, allowing the machine to be turned in close quarters.

Short Front Axle—Pole does not whip on rough ground. Axle is so pivoted that machine passes over rough land without straining the Frame.

One movement of a convenient Lever begins the spreading, the Beater starting before the Safety Board rises. When the load is off, the machine is thrown out of gear automatically, and, by pulling the Reverse Lever, a clutch on the Main Axle operates and returns the Apron to position for another load.

The Feed Gauge at left of driver permits of change of feed instantly while team is in motion.

A Foot Pedal is provided for stopping the Feed when turning, or if it is desired to pass over certain portions of the field. This is an exclusive Massey-Harris feature.

Apron runs on Rollers at the side and centre; as a result it works easily and without binding.

Tight Box.—The Safety Board makes the Box “material tight” prevents waste of manure and is handy for drawing in roots. The roots can be unloaded by raising the Safety Board and running the Apron back, a few turns of the crank accomplishing this.

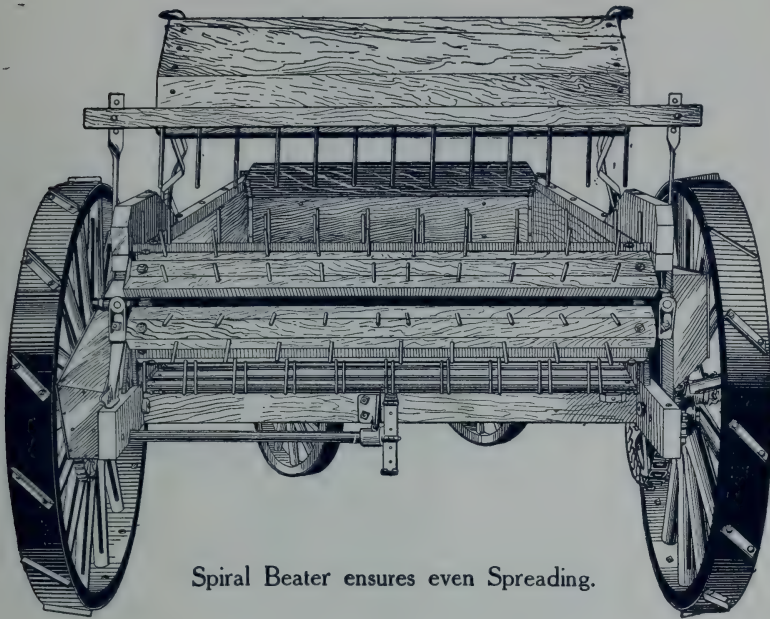


Salmon leads in value, \$10,025,523; lobsters, \$4,571,014; cod, \$3,368,750; herring, \$3,350,546; halibut, \$2,719,616; haddock, \$1,065,536; oysters, \$142,602.

Total value of fisheries, 1870 to 1913, \$830,327,081. For this period Nova Scotia leads, with 305½ millions; British Columbia, 165½ millions; New Brunswick, 151 millions; Quebec, 83½ millions; Ontario, 56 millions, etc.,

Canada's fishery equipment is worth \$24,388,459, an increase in value of \$3,455,555 over previous year.

Massey-Harris No. 3 Manure Spreader



Spiral Beater ensures even Spreading.

The Beater is made with heavy Bars bolted to iron ends. The Teeth are large, firmly set in the Bars and arranged in spiral form, so as to work the manure evenly over the entire width of the machine. Beater Bearings are self-aligning—the Beater always works freely.

Adjustable Rake Levels the load as it approaches the Beater and assists in pulverizing manure.

Safety Board is entirely automatic. It ensures even spreading at the start and prevents breakages.

Seat is Hinged and turns over out of the way when loading.

Made in four sizes:

A—Small, B—Medium, C—Large, and D—Extra Large.

Canada has a fishery fleet of 1,669 vessels and 34,501 boats, manned by 65,081 men; 23,327 employed on shore, or a total of 88,408. Motor-boat fishing fleet increased by 331 in 1913.

Fishing bounties paid since 1882, \$4,900,200.37.

Canada has 56 fish-breeding hatcheries; 860,983,831 fry distributed in 1912.

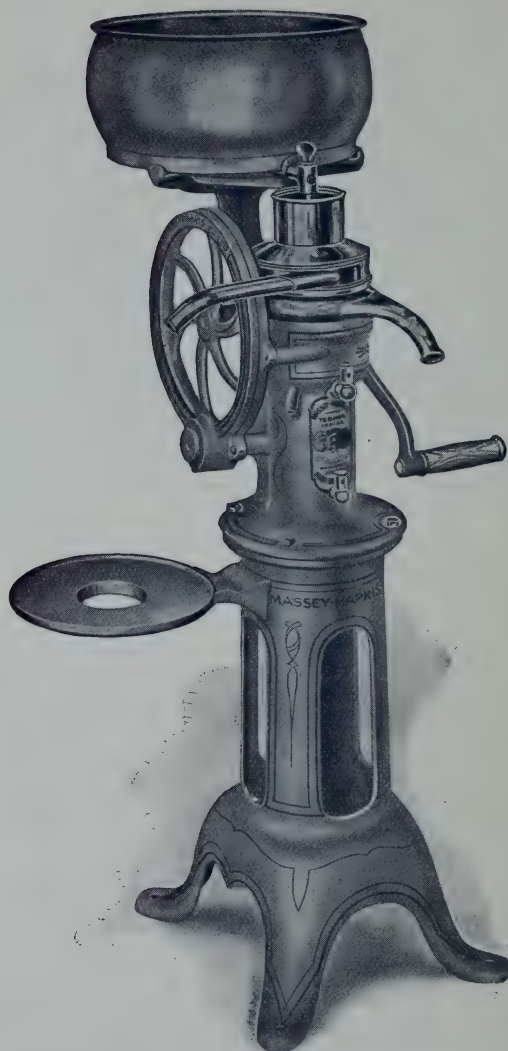
Canada's oyster production decreased from 64,646 barrels in 1882 to 23,377 in 1912-13.

Fisheries exports, 1912-13, \$16,336,721.





Massey-Harris Cream Separator



CANADIAN DAIRY AND LIVE STOCK STATISTICS.

Canada's dairy products exports, \$21,714,153 (decrease of \$2,389,223 over 1911-12), viz.: Cheese, \$20,697,144; butter, \$223,578; cream, \$751,123; condensed milk, \$25,554; casein, \$15,342; fresh milk, \$1,412. Nearly all to Great Britain.

Canada has paid \$69,460 in creamery cold storage bonuses to 803 creameries.

Canada exported, 1912-13, \$889,542 of dairy products to United States, as against \$971,327 in 1911-12.

Massey-Harris New No. 4 Cream Separator



The Massey-Harris is the ideal Separator for the Dairy, combining as it does, many features which make for Efficiency, Ease of Handling and Durability, among which may be noted the following:—

The Bowl has larger skimming surface than any other Separator claiming the same capacity, and as the improved Split Wing distributes the milk evenly to the Skimmer Discs, all of the skimming surface is utilized. The Split Wing also provides channels for the cream to pass to the outlet.

Both the skim milk and cream have clearly defined courses and there is consequently no struggle or conflict between the two—no re-mixing after once being separated, which would require additional effort to again separate them, and would result in loss of butter fat. The separation takes place quickly and surely.

Another advantage of the Split Wing is that the milk is speeded up at the centre of the Bowl before it is delivered to the Skimming Discs, requiring much less power than if speeded at the outer edge of Bowl.

The Main Frame is cast in a single piece, machined and bored with the utmost care by means of special forms and jigs, thus bringing all bearings in exactly the right relation one to another.

The Gears are cut by special automatic machines and run smoothly and quietly. They are all covered to ensure safety in operation.

The Bowl is *Self-Balancing*. It spins like a top on a Ball Bearing at its own centre of gravity, finding its own balance just as a top does.

The centre of gravity is the correct scientific point for the carrying of the Bowl—much superior to either a suspended Bowl or one supported from the lower end of Spindle.

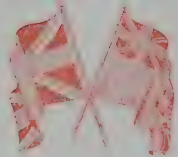
Canada's cheese exports, 1880-1913, \$442,000,000; butter exports, \$66,000,000.

Canada imported, 1912-13, in dairy products, 7,989,269 lbs. of butter (mostly from New Zealand), worth \$2,081,989; 1,495,758 lbs. of cheese, 261,555 lbs of casein.

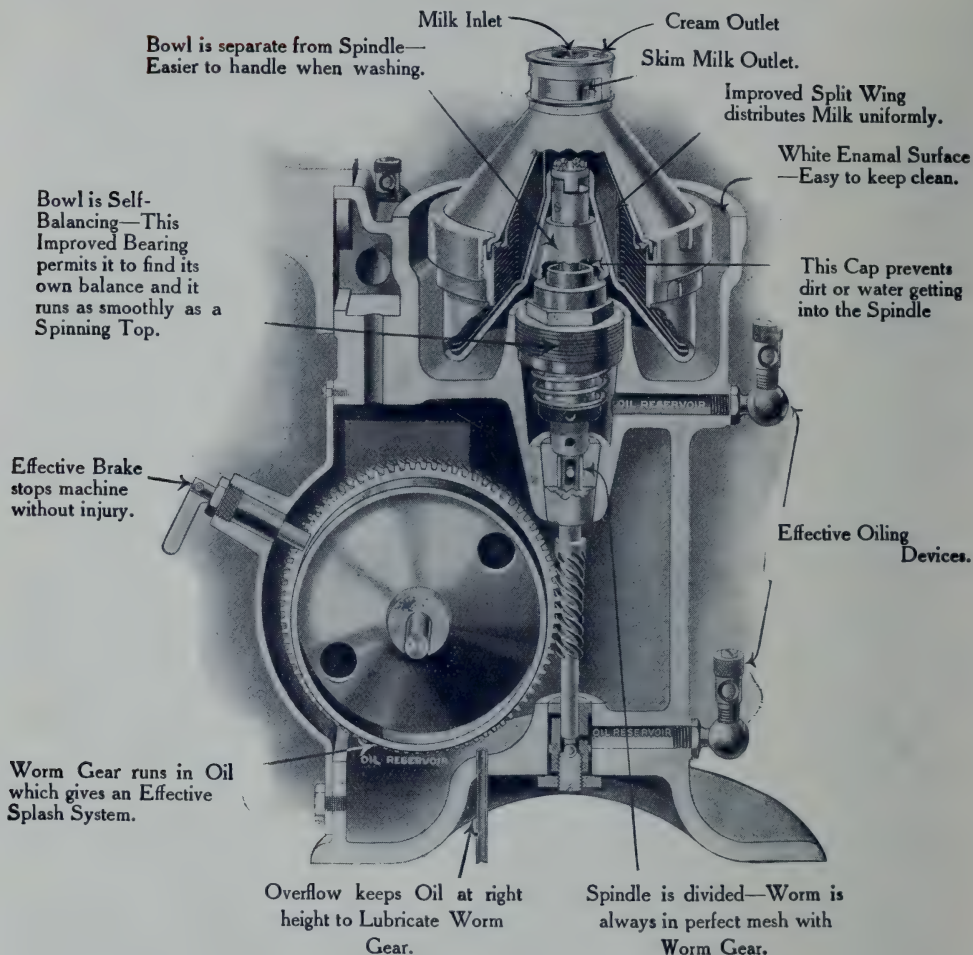
Canada's home consumption of dairy products is increasing by \$3,000,000 a year.

Shipment of eggs from New Zealand to Canada is a new industry.





Massey-Harris New No. 4 Cream Separator

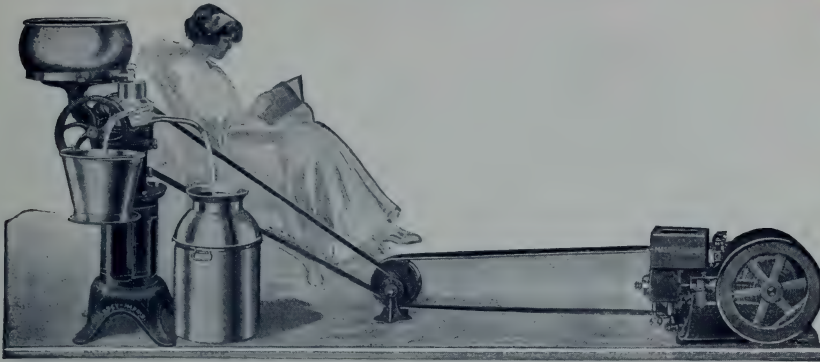


Canada, for first time in sixty years, shipped practically no butter to England, owing to growth of home market, but imported 7,000,000 lbs. from New Zealand.

Canada exported to Britain, in 1906, 15,000 tons of butter; in 1912, only 2,900 tons, as against 16,000 tons exported by New Zealand.

Canada had, June 30th, 1913, 2,535,800 horses, 2,648,800 milch cows, 4,183,000 other cattle, 2,141,000 sheep, 3,072,600 swine.

Massey-Harris New No. 4 Cream Separator



The Bowl is separate from the Spindle, making it much easier to handle when washing, and preventing injury to Spindle or Gears, as it is not necessary to remove Spindle unless to adjust it up or down.

The Spindle is divided—lower half is always in line and meshes properly with Worm Gear.

The Ball Clutch operates the instant you begin to turn the handle—there is no lost motion. These Balls also prevent wear when the Clutch is not in action.

The Brake Attachment stops Separator quickly and without danger of injuring the parts, as is often done by using a stick for a brake.

The low, non-splashing Supply Can is easy to fill and does not slop over as does a high, straight-sided can.

Furnished with Base for floor or table and in six sizes:—200 lbs., 300 lbs., 400 lbs., 500 lbs., 700 lbs. and 1000 lbs. capacity.

When it is desired to run this Separator with an Engine, a Pulley is substituted for the Crank and we also recommend the use of our Governor Pulley, as shown above, which brings the Separator up to speed slowly, and maintains a constant speed regardless of any slight variations in speed of the Engine.

Illustrated booklet giving full description can be had from any Massey-Harris Agent or by writing us direct.

Canada's exports of animals and their produce, \$44,784,593, lowest in 10 years; chiefly to United Kingdom.

Canada's live stock value, 1910, of 14,534,000 animals, \$593,768,000.

Canada has changed from a sheep-exporting to a mutton-importing country. Exports of sheep decreased from 391,000 in 1896 to 21,000 in 1912, while since 1910, imports have increased from 35,000 to 192,000 head.

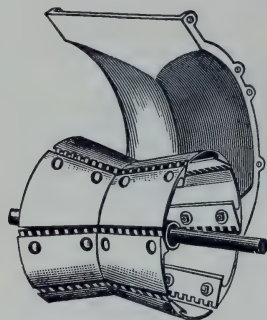
Canada sold England 6,800 cattle in 1912. Bacon sold, \$5,700,000.





Massey Harris Root Cutters and Pulpers

On many farms, the root crop is of considerable importance, and the preparation of the roots for feed is a subject that should receive careful attention.



Sectional View of No. 1
Pulper.

A Massey-Harris Root Pulper is a profitable investment, and will amply repay the small expenditure necessary.

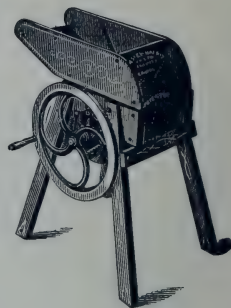
THE NO. 1 MACHINE has Concave Cylinder as shown in cut. It has a combined Fly Wheel and Pulley so as to be run by power when desired, but can be readily turned by hand.

It is substantially built, the hardwood Frame being firmly bolted together. Being fitted with Roller Bearings, it runs very easily.

By simply reversing the Knives, it can be used for either slicing or pulping.

THE NO. 2 MACHINE is of the Side Wheel type. It is made with the same thoroughness which characterizes the No. 1—Hardwood Frame, Roller Bearings and Reversible Knives for cutting and pulping.

A Crank is furnished on this machine but a Pulley can be substituted if it is desired to run by power.



No. 1 Root Cutter
and Pulper.



No. 2 Root Cutter
and Pulper.



CANADA'S MINERAL RESOURCES.

Canada's mineral production, 1912, \$135,048,296. Of this, Ontario supplied no less than \$51,906,876; British Columbia ranks second with \$30,076,635; Nova Scotia, third, with \$18,922,236; Alberta, fourth, with \$12,073,589; Quebec, fifth, with \$11,656,998; Yukon dropped to sixth place with \$5,933,242; Manitoba, seventh, with \$2,500,000; Saskatchewan, eighth, with \$1,000,000; and New Brunswick comes last with \$771,046.

Massey-Harris No. 9 Straw Cutter



A convenient, substantial Cutter for hand use. Has well-braced, Hardwood Frame so constructed that a box or basket may be placed so as to catch the feed.

Has two easily adjusted Knives mounted on the heavy Fly Wheel. The Knives have shear cut and the machine runs easily and smoothly, cutting the feed at a uniform length.

Can be turned by Crank at the side or the Handle can be bolted to the Fly Wheel.

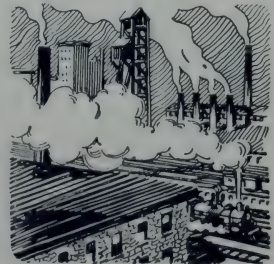
Feed Rolls have Spring Tension.

A Guard prevents injury from coming in contact with the Knives.

Mining products exports, 1912-13, \$57,442,546, highest on record.

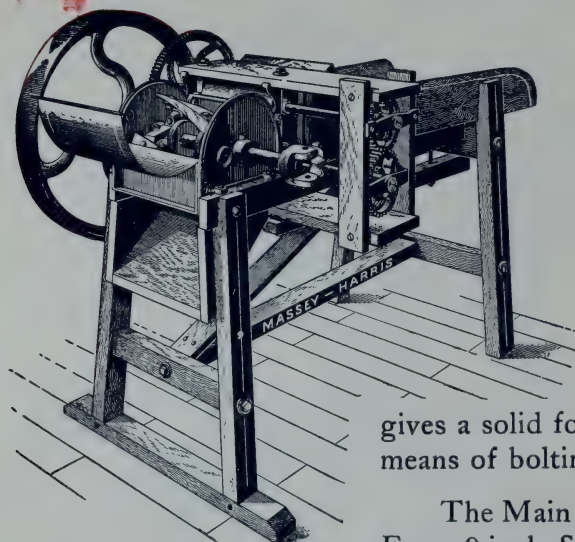
Canada's coal resources, 1,234,269,310,000 metric tons (of 2,240 lbs.), viz.: Nova Scotia, 9,718,968,000; New Brunswick, 151,000,000; Ontario, 25,000,000; Manitoba, 160,000,000; Saskatchewan, 59,812,000,000; Alberta, 1,072,627,400,000; British Columbia, 76,034,942,000; Yukon, 4,940,000,000; N. W. Territories, 4,800,000,000; Arctic Islands, 6,000,000,000.

Canada's estimated coal areas, surface extent of 109,168 square miles.





Massey-Harris Cummings' Straw Cutter



This is a combination hand and power machine. Either Knuckle or Pulley connection is provided so that either tumbling shaft or belt drive may be used.

The Frame is built of selected hardwood and is very substantial. The legs at the discharge end are fitted into a cross bar which gives a solid foundation, and affords an easy means of bolting to the floor.

The Main Shaft runs in Roller Bearings. Four 9-inch Spiral Knives are mounted in such manner as to be readily adjusted or removed for sharpening.

A heavy combination Fly Wheel and Pulley ensures steady running.

Gear-driven Feed Rolls, which automatically conform to varying amounts of straw or other material, give positive feed at all times. The cut can be changed by means of different gears to various lengths as follows:— $\frac{3}{8}$, $\frac{5}{8}$, $\frac{7}{8}$, $1\frac{1}{4}$, $1\frac{3}{4}$ or $2\frac{1}{4}$ in.

When driving by belt, the belt may be run on the Fly Wheel which is 24 inches in diameter, but the plan we recommend is to use a Pulley on opposite end of Main Shaft and we supply a 10-inch Pulley for the purpose.

When operating this Cutter by power, our $1\frac{1}{2}$ Horse-Power Engine affords a most satisfactory source of power.



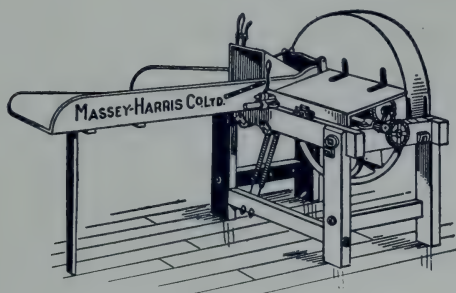
Western Canada coal areas: Manitoba, 48 square miles; Saskatchewan, 4000 square miles; Alberta, in excess of 15,000 square miles.

Canada's steel industry, 1913: Largest production on record, viz., pig iron made, 1,050,000 tons; steel ingots, 1,040,000 tons; steel rails, 500,000 tons. Increase of 10 per cent. over 1912.

Canada's imports of iron and steel are increasing at three times the rate of their home production.

Canada has 348 waterworks plants; cost \$95,566,496; daily consumption, 360,477,638 gallons; length of mains, 5,215 miles.

Massey-Harris No. 2 Straw and Ensilage Cutter



Especially suited for cutting straw in large quantities and is also intended for cutting Ensilage. It is furnished with Elevating Carrier, or as a simple machine, without Carrier, which can be operated by a crank when only a small quantity of straw is to be cut.

It has a substantial Hardwood Frame and is fitted with Roller Bearings. Feed Rollers have Tension Springs which cause them to grip the stalks or straw in a way to give positive Feed and allowing them to yield to anything which might cause breakage.

A convenient Lever gives the operator perfect control of the Feed Rolls, permitting of their instant stopping or reversing, thus making it a safe machine to operate.

Will cut in six different lengths, as follows:— $\frac{7}{16}$, $\frac{5}{8}$, $\frac{7}{8}$, $1\frac{1}{2}$, $2\frac{1}{8}$ or 3 inches, changes from one to the other being easily made.

CANADA'S MINING DATA—1911 CENSUS.

Canada's mining production increase, ten years, 1900-1910, 154.40 per cent., or from \$47,956,862 to \$122,004,932.

Canada's coal production increase, ten years, 1900-1910, 146.72 per cent., or from 5,321,675 tons to 13,139,636 tons.

Canada's coal mine employees, 1900, 14,504, 1910, 29,489.

Canada had 1,379 mines or works in 1900; 2,222 in 1910, increase of 61 per cent. Employees on salary, 1900, 1,527; 1910, 2,884. On wages, 1900, 37,065; 1910, 67,150.





Massey-Harris Blizzard Ensilage Cutter

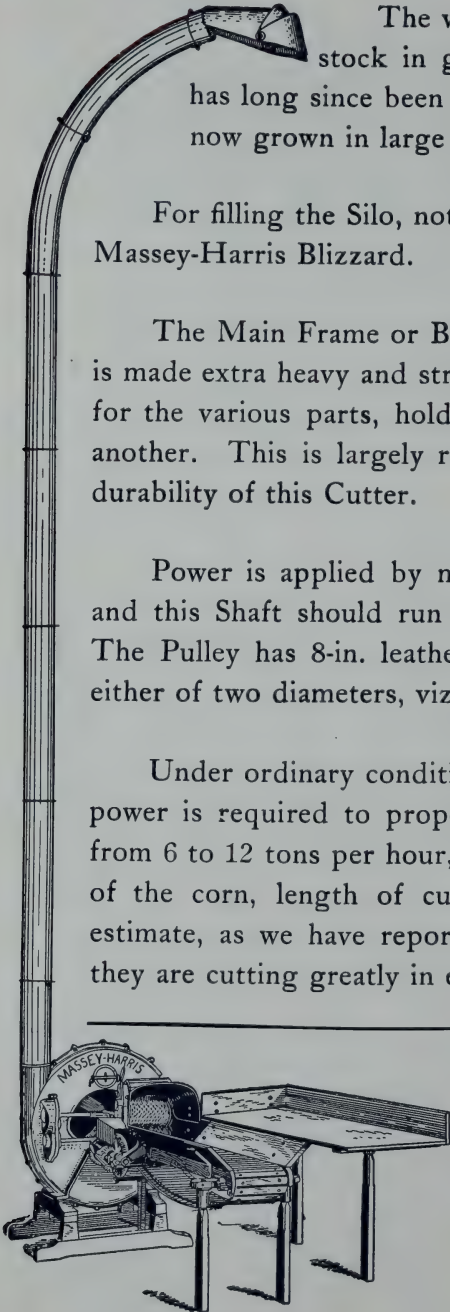
The value of Ensilage as a winter feed for stock in general, and dairy cattle in particular, has long since been proved beyond question, and corn is now grown in large quantities for this purpose.

For filling the Silo, nothing can be found quite equal to the Massey-Harris Blizzard.

The Main Frame or Blower Case is of an improved type, and is made extra heavy and strong so as to provide a solid mounting for the various parts, holding them in proper relation one with another. This is largely responsible for the smooth-running and durability of this Cutter.

Power is applied by means of a Pulley on the Main Shaft, and this Shaft should run 800 to 1000 revolutions per minute. The Pulley has 8-in. leather-covered face and can be supplied in either of two diameters, viz.: 10 or 12 inches.

Under ordinary conditions an Engine of from 12 to 15 horse-power is required to properly operate this Cutter. It will cut from 6 to 12 tons per hour, depending on the size and condition of the corn, length of cut, etc. This is a very conservative estimate, as we have reports from many farmers who state that they are cutting greatly in excess of these figures.



CANADIAN AGRICULTURAL FACTS.

Canada's field crops value, 1913, \$552,771,500 from 35,375,000 acres; compared with \$557,344,100 from 35,575,000 acres in 1912.

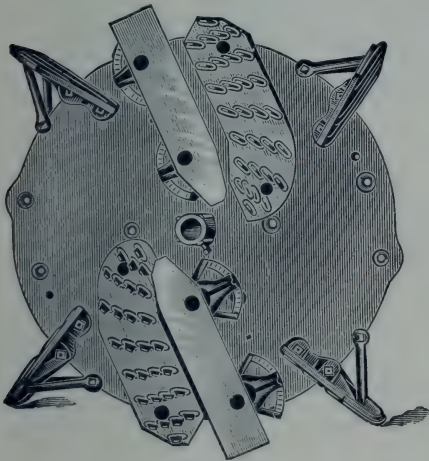
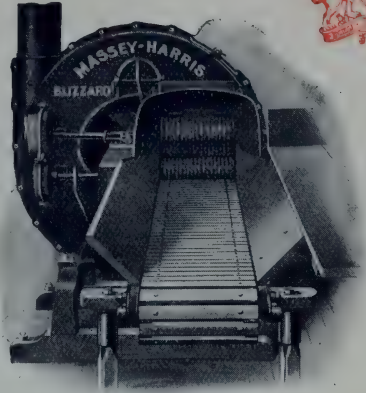
Wheat from 11,015,000 acres produced 231,717,000 bushels of value of \$156,462,000. 1912: 10,996,700 acres, 224,159,000 bushels and \$139,090,000.

Massey-Harris Blizzard Ensilage Cutter



The Head is very heavy, giving great strength and also giving the effect of a Fly Wheel. It is carefully balanced and the Shaft runs in long, well-babitted Bearings.

The Knives may be adjusted independently, and are easily removed for sharpening. If it is desired to shred dry fodder, Shredding Knives can be furnished; and, if desired, both Cutting and Shredding Knives may be used, making a combination Cutting and Shredding Head.



Combined Cutting and Shredding Head
furnished on Special Orders.

The accompanying illustration shows the construction of the Head, and the two styles of Knives. It also shows the Fan Blades and the Knife Adjustment.

A Feed Table is provided on which the stalks are thrown, and from where they can be easily placed on the Endless Carrier which delivers them to the Feed Rolls.

Of total wheat area, 970,000 acres devoted to fall wheat, production 22,592,000 bushels, value \$18,185,000; compared with 971,000 acres, 20,387,000 bushels, value \$17,157,000 in 1912.

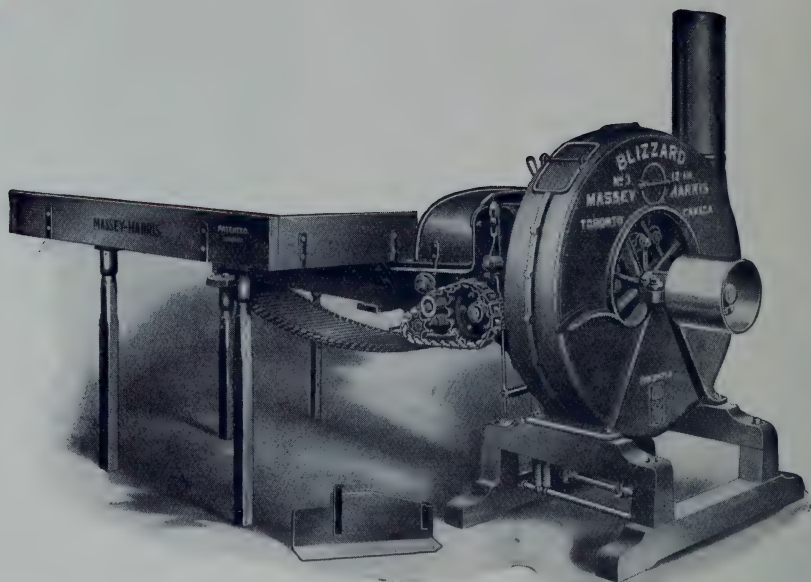
Oats yielded 404,669,000 bushels from 10,434,000 acres; value \$128,893,000. 1912: 9,966,000 acres, 391,629,000 bushels, value \$126,304,000.

Both wheat and oat crops of 1913 were highest on record in Canada, wheat as regards area, yield and value, and oats as regards area and yield.





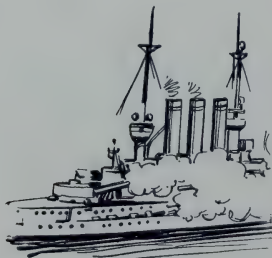
Massey-Harris Blizzard Ensilage Cutter



The Feed Rolls have Tension Springs adjusting themselves automatically to handle light or heavy stalks, also preventing breakage.

By changing the speed of the Feed Rolls the Massey-Harris Ensilage Cutter can be adjusted to cut four different lengths:— $\frac{1}{4}$ in., $\frac{1}{2}$ in., $\frac{3}{4}$ in. or $1\frac{1}{2}$ in.

The Blower has great power and capacity.



Barley yield from 1,613,000 acres, 48,319,000 bushels, value \$20,144,000, as against 1,581,000 acres, 49,398,000 bushels, value \$22,354,000 in 1912.

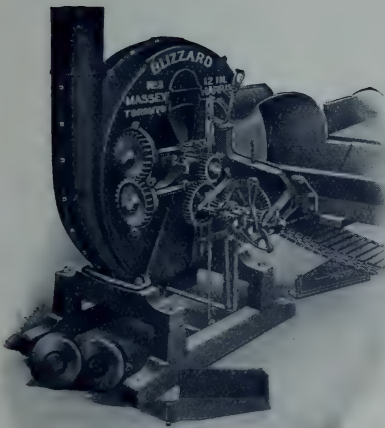
Quality of grain crops, as indicated by average weight per measured bushel, was superior to 1912, viz.: Spring wheat averages 60.37 lbs., against 58.90 lbs. in 1912; oats, 36.50 lbs., against 35.50 lbs., and barley 48.50 lbs., against 47.50 lbs.

Canada's area, sown to fall wheat for 1914 crop : 1,006,700 acres.

Massey-Harris Blizzard Ensilage Cutter



Transport Truck.



The improved form of Deflector Hood, shown on an earlier page, delivers the ensilage in any direction and works without clogging.

The Feed Rolls can be instantly stopped or reversed, and as the Rolls, Knives and Gears are covered, it is the safest Cutter you can buy.

Transport Truck supplied when wanted. See cut at top of page.

Canada's cereal and hoed crops area, 1913: Buck-wheat, 352,100 acres; flax, 1,287,300; corn for husking, 272,650; beans, 52,950; potatoes, 462,600; turnips, etc., 206,400, sugar beets, 17,500; corn for fodder, 281,890.

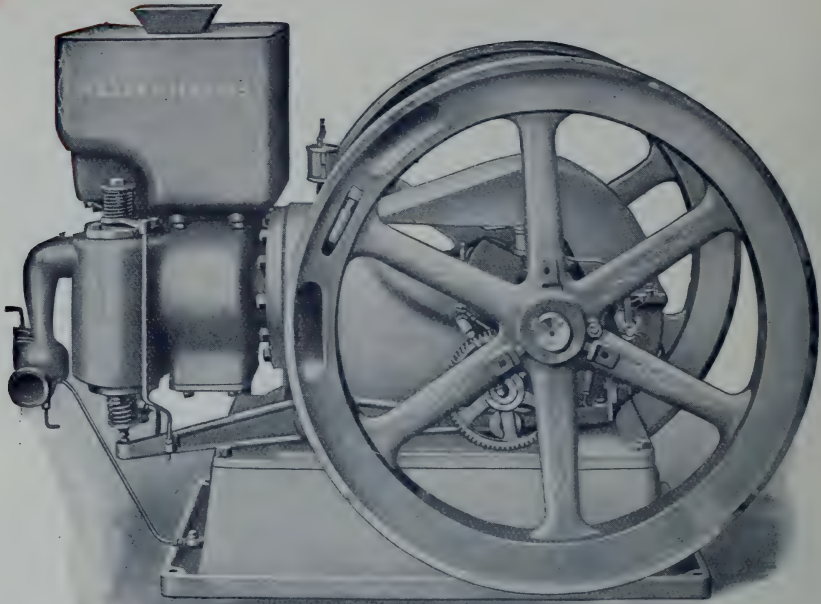
Canada's root and fodder crops area, 1913: 8,693,000 acres, value, \$187,399,100.

Canada's tobacco, approximate, production: about 4,000,000 lbs. for Quebec, and from 8,000,000 to 12,000,000 lbs. for Ontario, according to season.





Massey-Harris Gasoline Engines



Stationary Engine, Hopper Jacket, $1\frac{1}{2}$, 3, $4\frac{1}{2}$, 6, 8, 12, 15 or 20 Horse Power.
Closed Cooling Jacket can be furnished if wanted.

The high efficiency of Massey-Harris Engines, coupled with their economy of operation and durability, combine to make them without exception, the most reliable and satisfactory on the market to-day.

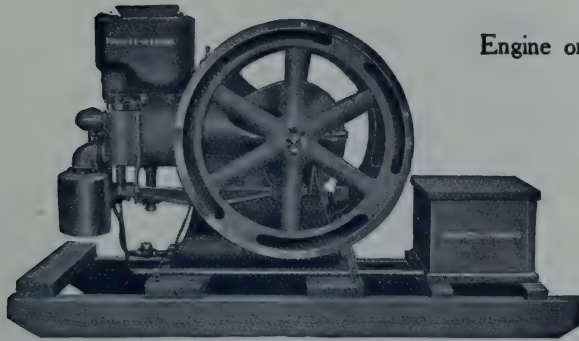
They are built in our own Engine Factory by expert machinists who have at their command the best possible facilities for making and assembling the parts, and with competent supervision and rigid inspection constantly exercised, the purchaser is assured of getting an Engine worthy in every respect to bear the name "Massey-Harris."



A FEW OF CANADA'S LEADING MANUFACTURING INDUSTRIES
FROM CENSUS OF 1911.

NAME OR KIND OF INDUSTRY	Establishments.	Employees	Paid in Wages.	Value of Products.
Agricultural Implements.....	77	9,560	\$ 5,551,647	\$ 20,722,722
Boots and Shoes.....	180	17,227	7,698,333	33,987,248
Bread, Biscuits and Confectionery....	323	10,003	4,660,221	25,566,691
Butter and Cheese.....	3,625	6,147	1,701,775	32,298,670
Carriages and Wagons.....	287	5,523	2,948,667	11,766,882

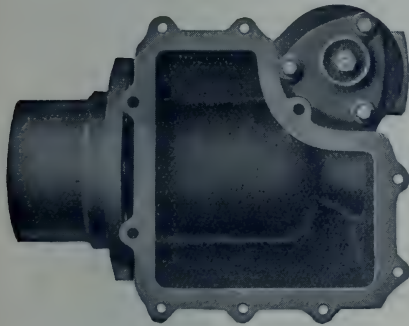
Massey-Harris Gasoline Engines



Engine on Skids.

The Cylinder, Cylinder Head and Water Jacket are cast in one piece—no gaskets or packed joints about the Cylinder or Water Jacket to leak.

The Cylinder and Piston are machined with the utmost care on machines specially built for the purpose, ensuring absolutely perfect fit, with the carefully fitted Rings giving good compression.



Top View of Cylinder and Water Jacket.

The horizontal type of Engine ensures perfect lubrication and long wear of the Piston and Cylinder.

Gasoline Storage is in the hollow, cast-iron Base, which is a part of the Main Frame and is absolutely tight—no danger from leakage.

Large water space around Cylinder and Valves—prevents overheating.

Forged Steel Crank Shaft.

Extra Large Main Bearings set on an angle of 30°.

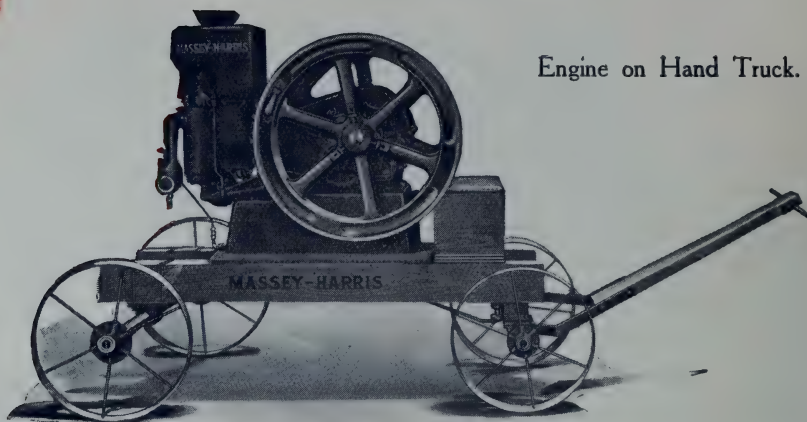
Heavy Connecting Rod of I-Beam Section. The Bearings at both ends of Rod are provided with suitable means for taking up the wear and keeping these important Bearings always tight.

NAME OR KIND OF INDUSTRY	Establishments.	Employees.	Paid in Wages.	Value of Products.
R. R. Cars and Works.....	15	6,909	\$ 3,676,810	\$ 16,630,634
Clothing (Men's).....	555	19,758	9,530,494	33,744,928
Clothing (Women's).....	331	16,085	6,756,121	21,027,342
Cottons.....	26	13,041	4,828,527	24,584,931
Electrical Apparatus and Supplies.....	47	6,345	3,497,089	15,021,841
Flour and Grist Mill Products.....	1,141	6,791	3,756,275	82,494,826
Foundry and Machine Shop Products..	514	26,835	14,740,095	45,611,416
Furniture and Upholstered Goods.	172	8,935	4,044,236	12,369,366





Massey-Harris Gasoline Engines



Engine on Hand Truck.

Jump Spark Ignition with Spark Plug in the end of the Cylinder, ensuring perfect and rapid combustion.

The Inlet and Exhaust Valves are of the vertical type, of large size and are mounted in removable Valve Cages, allowing either Valve to be removed by simply taking out two screws and without affecting any adjustment whatever. The Inlet and Exhaust Valves are interchangeable.

The Exhaust Valve is positively operated by a single Lever. The Inlet Valve is automatically locked to its seat on idle stroke—no complicated mechanism to get out of order.

Effective Governor—On idle strokes, no charge is drawn in and there is no spark.

The Mixer has no moving parts and Gasoline Pump is eliminated, the suction of the Piston drawing in the charge. This is the most efficient and economical Mixer in its consumption of gasoline that it is possible to make.

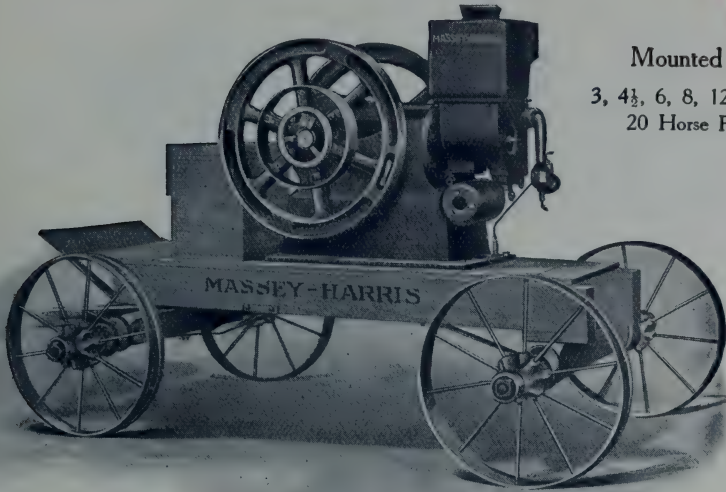


Valve and Cage.



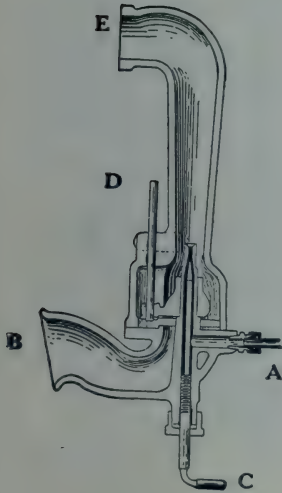
NAME OR KIND OF INDUSTRY	Establishments.	Employees.	Paid in Wages.	Value of Products.
Hats, Caps and Furs.....	139	4,639	\$ 2,234,170	\$ 11,155,103
Hosiery and Knit Goods.....	68	8,364	2,814,667	13,393,854
Iron and Steel Products.....	89	11,286	7,147,253	34,613,710
Leather, Tanned, etc.....	113	3,799	2,094,677	19,972,178
Log Products.....	3,499	76,424	25,822,383	105,596,190
Lumber Products.....	859	17,225	9,615,046	39,805,615
Paper.....	35	5,625	2,895,717	14,109,014
Printing, Publishing, etc.....	631	17,007	10,473,991	25,181,794

Massey-Harris Gasoline Engines



Mounted Rig.

3, 4½, 6, 8, 12, 15 and
20 Horse Power.



Air Throttle makes the Engine exceptionally
easy to start, even in cold weather.

Section of Carburetor.

A—Gasoline Inlet. B—Air Inlet. C—Needle Valve.
D—Air Throttle. E—Passage to Combustion Chamber.

In our Engine Catalogue, which may be had
from any of our Agents, we also show the follow-
ing:—

Wood Sawing Outfits, Contractor's Hoists,
Contractor's Diaphragm Pumps, Governor
Pulleys for operating Cream Separators, Pump
Jacks, Etc.

NAME OR KIND OF INDUSTRY	Establish- ments.	Em- ployees.	Paid in Wages.	Value of Products.
Slaughtering and Meat Packing.....	70	3,781	\$ 2,406,571	\$ 41,208,796
Smelting.....	18	6,219	4,776,609	33,669,700
Sugar, refined.....	8	2,164	1,320,563	21,260,011
Wood Pulp.....	37	923	521,268	9,117,465



Canada's Manufacturing establishments represent a capital of
\$1,247,583,609 and give employment to 515,203. The annual
salary and wages amount to \$241,008,416 and the products amount
to \$1,165,975,639.



Massey-Harris Grinders



No. 2 Grinder
without Bagger

9 $\frac{1}{4}$ and 10 $\frac{1}{2}$ inch
Burs.



CANADA'S MANUFACTURES—Continued.

VALUE OF PRODUCTS IN 1910 IN 20 CANADIAN CITIES.

Montreal, \$195,177,563; Toronto, 154,306,948; Hamilton, \$55,125,946; Winnipeg, \$39,400,608; Ottawa, \$20,924,340; Quebec, \$17,149,385; London, \$16,273,999; Brantford, \$15,866,229; Vancouver, \$15,070,105; Halifax, \$12,140,409; Windsor, \$12,113,279; Berlin, \$12,078,783; Peterborough, \$10,633,119; St. John, \$10,081,667; Sydney, \$9,395,017; Sault, \$7,842,385; Calgary, \$7,751,011; Guelph, 7,392,236; Hull, \$7,259,301; St. Catharines, \$6,024,217.

Massey-Harris Grinders



Ground Feed is more economical and gives better results than unground.

It has been conclusively proved by Agricultural Colleges, Government Experimental Stations and by practical farmers everywhere, that by substituting ground feed for unground, there is a saving of one-fifth to one-third of the grain and at the same time produces more flesh, more milk and cream, more rapid growth, and keeps the stock in better health.



No. 1 Grinder without Bagger.
6½, 8 and 9-inch Burrs.

The advantage of grinding your own grain is that you can grind it as required, fine or coarse, as occasion demands and much more cheaply than you can hire it done.

Massey-Harris Grinders embody all that is newest and best in Grinders, including several exclusive features covered by our own Patents; of extra strong construction; each and every Grinder carefully inspected and given an actual running test before shipping.

The Burrs are made of an especially hard mixture and are reversible, being cut and dressed both sides by special machinery—always in perfect trim.

The Stationary Burr is bolted to the Cover of the Housing by four bolts, each of which has two Spiral Springs, one within the other, to give flexibility.

Burrs, Head and Pulley are perfectly balanced to ensure smooth running.

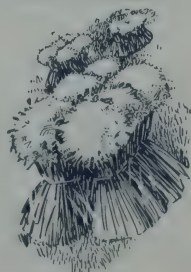
A quick and positive Adjustment is provided for setting the Plates to grind fine or coarse, and Patent Quick-Relief Lever enables the operator to instantly stop or start the grinding without affecting the Adjustment—ONCE SET ALWAYS SET.

Canada makes 300 varieties of manufactures, sustaining two-fifths of population.

Canada's industrial development in ten-year period of 1901-1911 was greatest on record.

Exports of manufactures, 1912-13, \$43,692,708. Ontario led with 8,001 establishments; Quebec, 6,548; Nova Scotia, 1,480; New Brunswick, 1,158; British Columbia, 651; P.E.I., 442; Manitoba, 439; Alberta, 290; and Saskatchewan, 173.

Canada's woollen industry, 1899, 236 mills; production, 13,992,000 yards. 1912, 78 mills; production, 7,616,400 yards.





Massey-Harris Grinders



No. 1 Grinder with Bagger Attachment

A Safety Break Pin automatically relieves the Burrs if any hard substance gets in.

The Main Shaft Bearings are of ample size and well babbitted, and an improved Friction Block takes the end thrust.

The patent Raising and Lowering Device for Feed Spout is a great improvement. Feed Spout has two Sieves, one for carrying off straws, stones, etc., the other for removing sand and dirt.

Bagger Attachment can be supplied when ordered.

Special Circular gives full particulars and may be had from any Massey-Harris Agent.

CANADA'S RAILWAYS.



During year ending June 30th, 1913, Canada's railways carried more passengers and freight, ran more trains and employed more men than ever before.

Canada's railway mileage, June 30th, 1913, 29,304, or (including all tracks and sidings), 38,223, doubled in 20 years. Mileage in 1836, 16; at Confederation, 1867, 2,278.

Canada's railway mileage will have doubled since 1903. By 1915, the lines under construction will be completed, representing 35,000 miles, as against less than 19,000 in 1913.

Massey-Harris Grinders



No. 2 Grinder with Bagger Attachment.



TABLE OF DIMENSIONS OF MASSEY-HARRIS GRINDERS.

Style of Mill	Size of Mill	Dia. of Grinding Plates.	Weight	Pulley Dia. and Width		Speed Revolutions per Minute	Horse Power	Approximate Capacity in Bu. per Hr. Grinding		Floor Space	Height of Mach.	Size of Pulley on Engine
								Fine	Coarse			
	In.	In.	lbs.	In.	In.						ft. in.	In.
No. 1	6½	6½	210	4	x 5	2000 to 2500	2 to 3	2½	10	3 ft. x 2½ ft.	3 3	20
No. 1	8	8	225	4	x 5	2000 to 2500	3 to 4½	4	18	3 ft. x 2½ ft.	3 3	20
No. 1	9	9	250	4	x 5	2000 to 2500	4 to 6	6	25	3 ft. x 2½ ft.	3 3	20
No. 2	9¾	9¾	400	5½	x 6½	2300 to 3000	6 to 8	15	35	3 ft. 6 in. x 2 ft. 8 in.	3 4	16
No. 2	10½	10½	425	5½	x 6½	2300 to 3000	6 to 10	20	40	3 ft. 6 in. x 2 ft. 8 in.	3 4	16

The Capacity of the Grinding Mills depends on Speed, Power, fineness of grinding and the kind of Grain ground.

NOTE.—Speeding Jack for No. 2 Grinder has 6 in. and 14 in. Pulley.

Shipped as illustrated—with or without Elevator as ordered—with 1 pair Extra Plates and Wrench.

Ontario leads in mileage, with 9,000; Quebec, 3,986; Saskatchewan, 4,651; Alberta, 2,212; British Columbia, 1,951; New Brunswick, 1,545; Nova Scotia, 1,360; Prince Edward Island, 279; Yukon, 102; Manitoba, 3,993.

Capital invested in railways, \$1,548,256,796 (revised).

Canada's railways have been given cash subsidies of \$217,830,158, viz., \$163,251,469 from Dominion, \$36,500,015 from provinces, and \$18,078,674 from municipalities. Dominion and Provincial Governments have also guaranteed railway bonds for many millions. Railway subsidies, 1912-13, \$9,758,084





Massey-Harris Saw Outfits

No. 1 Woodyard Saw.



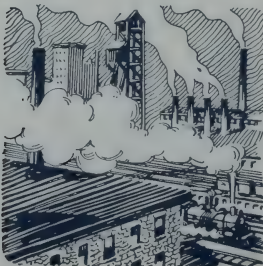
Massey-Harris Circular Wood Saws are made of the very best Materials, and constructed in a manner to give ample strength and rigidity, as well as safety.

The All-Steel Riveted Frame is made of heavy Angle Steel, properly braced with flat Steel Bars all riveted up solid and with no danger of anything working loose as when bolts are used,

New Stop-Gauge on Table, adjustable to any length of cut, is a useful improvement.

The Saw Collars are large and very strong and hold Saw solid without the necessity of a Pin.

Blades 20, 22, 24, 26, 28 or 30 inches in diameter can be supplied as ordered. They are of the best quality, accurately ground and set.



INTERESTING FIGURES RELATING

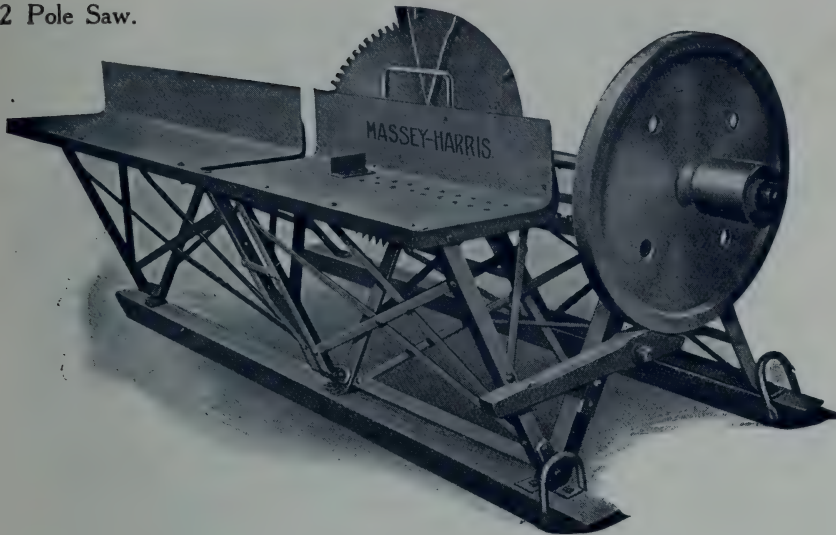
Cars owned and Leased.

	Passenger Cars.	Freight Cars.	Railroad Operated Miles	Total Train Mileage. Miles
	No.	No.	Miles	Miles
1908	4,026	115,709	22,966	78,637,526
1909	4,192	117,779	24,104	79,662,216
1910	4,320	119,713	24,730	85,409,241
1911	4,513	127,158	25,399	89,716,533
1912	4,946	140,918	26,727	100,930,271
1913	5,696	182,221	29,303	113,437,208

Massey-Harris Saw Outfits



No. 2 Pole Saw.



Improved Saw Guard, very handy and safe; completely encloses half the Saw; all that is necessary to remove it is simply to loosen the nut at top and throw the Guard back on the hinge at the bottom.

Heavy Balance Wheel ensures steady running.

A Brake is provided for the Balance Wheel on Nos. 1, 2 and 3, operated by the foot.

Ratchet Pulley for stopping Saw instantly.

Heavy Shaft of Cold Rolled Steel. Boxings for Shaft are self-aligning and properly babbitted. They are fitted with Lock Washers to prevent getting loose.

Skids are chamfered at the ends and fitted with Clevises for easy transportation.

TO CANADIAN RAILROADS.

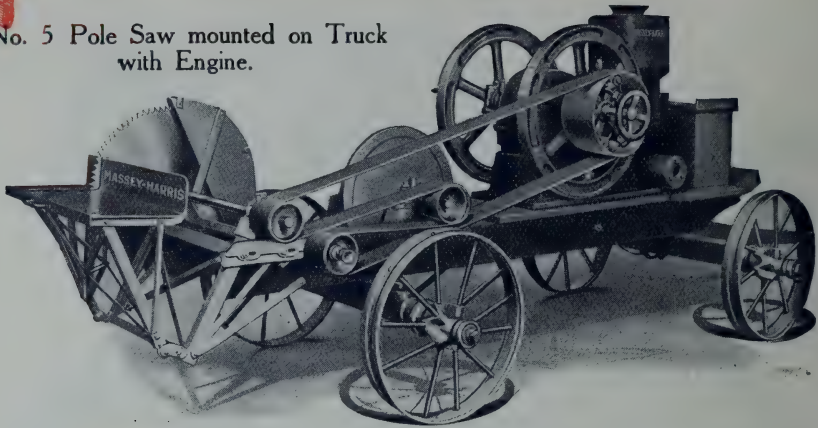
Passengers Carried	Tons Moved (2000 lbs.)	Gross Earnings.	Net Earnings.
No.	Tons	\$	\$
34,044,992	63,071,167	146,918,314	39,614,171
32,693,309	66,842,258	145,056,336	40,456,252
35,894,575	74,482,866	173,956,217	53,550,777
37,097,718	79,884,282	188,733,494	57,698,709
41,124,181	89,444,331	219,403,753	68,677,213
46,230,765	106,992,710	256,702,703	74,691,013





Massey-Harris Saw Outfits.

No. 5 Pole Saw mounted on Truck with Engine.



Massey-Harris Saw Rigs are made in 5 Styles as follows:—

- No. 1, Steel Frame, Tilting Table Woodyard Saw on Skids.
- No. 2, Steel Frame, Extension Tilting Table Pole Saw on Skids.
- No. 3, Steel Frame, Extension Tilting Table Pulpwood Saw on Skids.
- No. 4, Steel Frame, Tilting Table Pole Saw with Fly Wheel below Table, on Skids.
- No. 5, Steel Frame, Tilting Table Pole Saw with Fly Wheel below Table, for mounting on Truck with Engine.

Style of Machine.	No. of Machine	Weight Lbs.	Speed Required.	Power Required.	Size of Pulley Required on M.-H. Engine.	Size of Pulley on Saw.	Distance between Bal. Wheel and Saw Blade.
			R. P. M.		in. in.	in. in.	ft. in.
Woodyard Saw	No. 1	450	1000 to 1500	3 to 4½ H.P.	14 or 16	6 x 6	3 3
Pole Saw	No. 2	550	1000 to 1500	3 to 4½ H.P.	14 or 16	6 x 6	3 3
Pulpwood Saw	No. 3	575	1000 to 1500	3 to 4½ H.P.	14 or 16	6 x 6	4 3
Pole Saw	No. 4	490	1200 to 1500	4½ to 6 H.P.	18 or 20	6 x 6	
Pole Saw	No. 5	435	1200 to 1500	4½ to 6 H.P.	18 or 20	6 x 6	

AREA AND POPULATION OF CANADA.

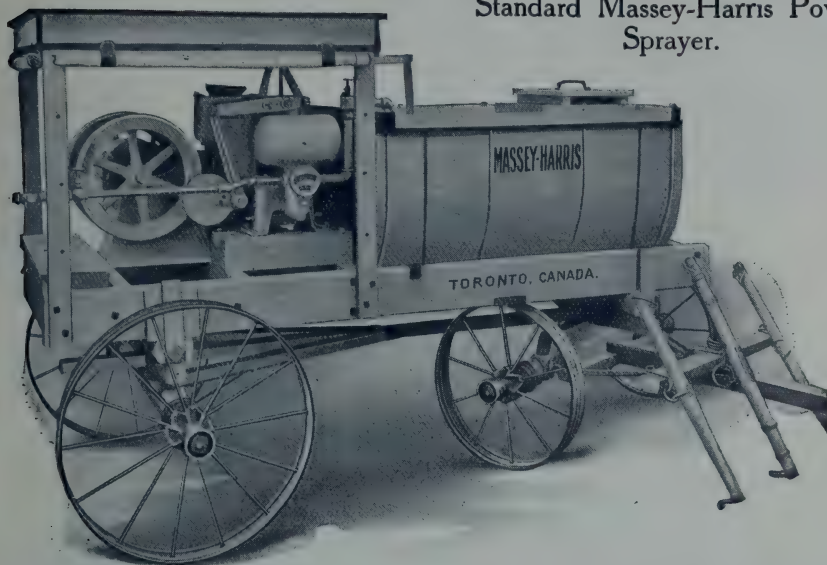


PROVINCE	Land Area Sq. Miles.	Water Area Sq. Miles.	Total Area Sq. Miles.	Population 1911.	Pop. pr Sq. Mile
Prince Edward Island..	2,184		2,184	93,728	42.92
Nova Scotia.....	21,068	360	21,428	492,338	22.98
New Brunswick.....	27,911	74	27,985	351,889	12.61
Quebec.....	690,465	15,969	706,834	2,003,232	5.69
Ontario.....	365,880	41,382	407,262	2,523,274	9.67
Manitoba.....	231,926	19,906	251,832	455,614	6.18
British Columbia.....	353,416	2,439	355,855	392,480	1.09
Alberta.....	252,925	2,360	255,285	374,663	1.47
Saskatchewan.....	243,382	8,318	251,700	492,432	1.95
Yukon.....	206,427	649	207,076	8,512	.04
North-West Territories..	1,207,926	34,298	1,242,224	18,481	
TOTALS..	3,603,910	125,755	3,729,665	7,206,643	1.93

Massey-Harris Spray Outfits



Standard Massey-Harris Power
Sprayer.



Long experience with Fruit Growers has enabled us to produce a line of Sprayers adapted to the most difficult conditions.. The key-note of the Massey-Harris is **SIMPLICITY**, as will be readily seen by examining the illustrations, or better, by comparing the machine with others.

Effectiveness depends on proper design and construction of the working parts. Our Outfits have been designed by, and are built under the personal supervision of, those who have devoted their lives to this one line.

Some of the points which should be especially noted on the Massey-Harris are as follows:

Double Cylinder Vertical Pump with Bronze Plungers.

Tank is made of selected Cypress put together by Experts.

Simple, Direct Connection between Engine and Pump—no Sprocket Chains to get tangled in branches of trees.

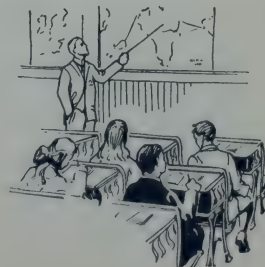
EDUCATIONAL FACTS.

First school opened in Canada at Quebec in 1632.

Education Act passed in Upper Canada in 1799.

Grammar schools founded in Upper Canada in 1807; common schools in 1816

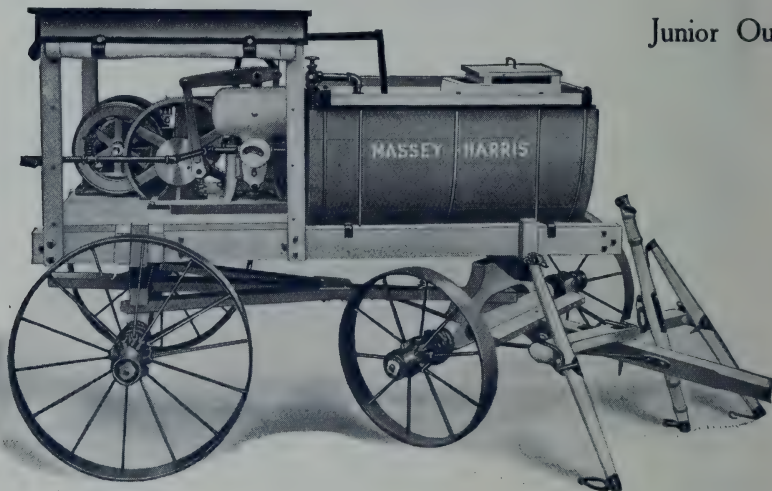
Ontario: 5,939 public schools; 513 Roman Catholic separate schools; 6 Protestant separate schools (included with public schools); 204 kindergarten schools; 26 night schools; 161 high





Massey-Harris Spray Outfits

- The Agitator is positive in its action and is operated from the top—no holes through side of Tank to leak.
- The Cab protects all working parts.
- The Front Wheels turn under the Frame.
- The Engine is the well-known Massey-Harris Hopper-cooled; runs in any weather and on the steepest side-hill; is efficient and economical in its operation.



Junior Outfit.

The Junior Outfit has been designed especially to meet the demand for a small, light Power Sprayer at a reasonable figure. The Engine used is the Massey-Harris $1\frac{1}{2}$ H.P. Hopper Jacket Horizontal Engine, Gear-connected to Goulds Two-Cylinder Pump.

While the Outfit is smaller and lighter in every way, the same guarantee is back of it and the same grade of material and workmanship is used as on the Standard Outfit. We especially recommend this Outfit for use in very sandy soil and in small orchards which do not warrant the purchase of our Standard Outfit.



schools and collegiate institutes; 127 continuation schools Total number of pupils in all of above schools, 528,029; teachers; 12,271; Government expenditure, \$1,116,315; total expenditure, \$13,492,108

Quebec: 1912, 6,856 schools, universities and colleges. 14,926 teachers, 7,411 of whom are lay-women and 4,150 nuns; 422 615 pupils.

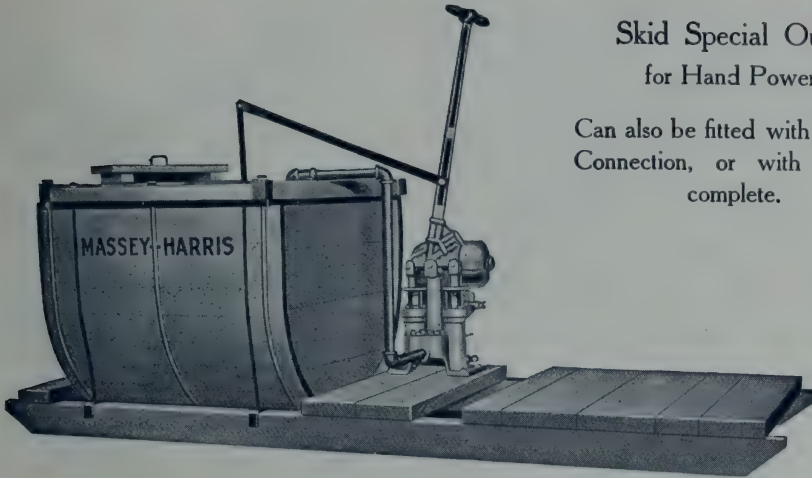
Quebec also has 6 technical schools; forestry school, 20 classical colleges, 14 normal schools, 75 night schools, School of Higher Commercial Studies.

Massey-Harris Spray Outfits



Skid Special Outfit for Hand Power.

Can also be fitted with Engine
Connection, or with Engine
complete.



To meet the demand for an Outfit at a moderate cost for the use of those who do not feel the need of the more expensive rigs, we have introduced these Sprayers.

In this connection we wish to emphasize one point, and that is that *the quality is the same as in our Standard Outfits*. The omission of the Trucks and Engine Cab, the use of a smaller Engine and Pump, and, in the case of Outfits Nos. 1 and 2, the omission of the Engine, explains the difference in cost.

As will be seen from the illustration, the Side Sills are in the form of Skids and the Outfit may be drawn around on these Skids, or can be mounted on any ordinary Wagon Gear.

A complete Spray Catalogue describing our line of Spray Outfits and giving useful information on the subject of Spraying may be had from any Massey-Harris Agent or will be mailed on request.

Nova Scotia: 2,692 schools, 105,269 pupils, 2,861 teachers. Government expenditure on education, \$330,602; Government and municipal, \$1,379,332.

New Brunswick: 1912, 69,199 pupils enrolled in public schools. Teachers employed, 2,015.

Prince Edward Island. 479 schools, 590 teachers, 17,078 pupils. Government expenditure, \$144,000. Total, \$225,000.

Manitoba: 81,932 pupils enrolled in schools at end of June, 1913; 2,308 teachers at work at one time. Government expenditure on education, \$564,558,





Verity Plows, Etc.

Verity Plows, Scufflers, Land Rollers and Packers, Barrows, etc., have been developed to a very high degree of excellence by those who have made a life study of such implements.

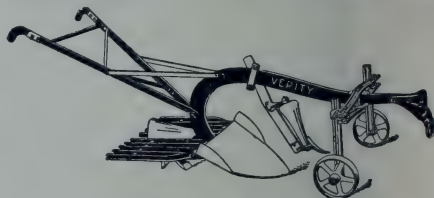
Away back in 1857, the late W. H. Verity, began the manufacture of Plows in a little shop at Exeter, Ont. At the outset, Mr. Verity was determined that whenever the name "Verity" went on a Plow, it should stand for the very best that could be produced—that the Plows should embody all that is implied by the word Verity.

The wisdom of this policy has been fully justified by the popularity which these Plows have attained and which has given rise to the well-founded claim that the name "Verity" is a guarantee of Quality.

The industry remained at Exeter until 1892, Mr. Verity's sons having



One of the many styles of Verity Walking Plows



Verity Potato Digger.



Verity 2-Horse Hoe.



Verity Grape and Berry Hoe.

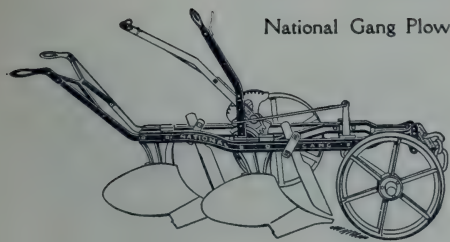


Saskatchewan: Schools in operation, 2,444; departments in operation, 2,947; teachers employed, 3,397; pupils enrolled, 79,882; pupils in Secondary Schools, 2,014; teachers in Secondary Schools, 64; total expenditure on education, \$5,931,843 (1912).

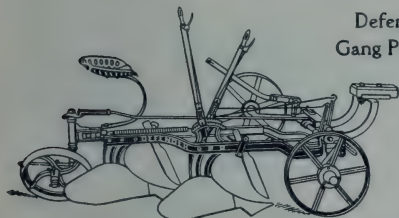
To December 31st, 1913, Mr. Carnegie, personally or through Carnegie Corporation, has made library donations in Canada aggregating \$2,888,215, including 135 original building, five branch buildings and two extensions.

University of Toronto, 4,100 students.

Verity Plows, Etc.



National Gang Plow.



Defender Gang Plow



Farmer's Friend Sulky Plow.



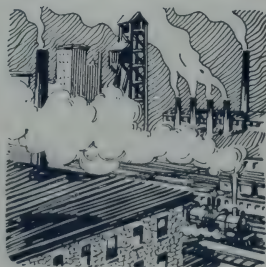
Farmer's Friend Gang Plow.

in the meantime become associated with him under the Firm name of W. H. Verity & Sons. By this time the business had assumed such proportions that it was found necessary to find a location affording better facilities, and Brantford was chosen as the city best suited to the needs of the rapidly growing concern.

In 1897 the Company's Plant was destroyed by fire, but with characteristic energy, plans were inaugurated, while the ruins still smouldered, for a bigger and better factory which rapidly took tangible shape, so that inside of a year the new plant was in operation.

Especial pains were taken to provide for future extensions of the works, every facility was provided for the manufacture of high-grade Plows, and skilled workmen under competent supervision and inspection have maintained the high standard set by the founder of the business.

University of Ottawa, 816 students.
Queen's University, Kingston, 1,577.
University of Saskatchewan, 385.
McMaster University, Toronto, 239 undergraduate students;
79 at Brandon College; 7 at Okanagan College—305 in all.
McGill University, 1,893 students and 225 in British Columbia.
Laval University, Quebec and Montreal, 1913; 322 teachers
and 1,624 pupils; 1913-14, 456.
Canada has 1,200,000 school children.





Verity Plows. Etc.

At the present time there is no better equipped and manned Plow Factory in the world than the Verity, and there is every reason to believe that the future will see the same high standard maintained and the same progressive spirit directing the policy of the Company.

In 1895 the Verity Plow Company, Limited, became affiliated with Massey-Harris Company, Limited, and arrangements were made whereby Verity Plows are sold exclusively by the Massey-Harris Sales Organization which reaches every part of Canada, and in fact, nearly every country in the world.

Verity Implements are described in a separate Catalogue which may be had from any Massey-Harris Agent or by writing us direct.



Verity Land Roller.



Verity Scuffler



Verity Barrow



Verity Seed Sower.



Reading Camp Association of Canada: Founded in 1900. 500 students served under it. Instruction in English, etc., given annually to 10,000 miners, lumbermen, etc.

EDUCATION CENSUS DATA.

Persons who can read and write, of population of five years of age and over, 88.98 per cent. in 1911; 82.88 per cent. in 1901.

Persons who can read only: One-half of one per cent. in 1911; 2.74 per cent. in 1901.

Illiterates: 10.50 per cent. in 1911; 14.38 per cent. in 1901.

Bain Wagons, Etc.



Bain Standard Gear.



Bain Shelving Box Farm Wagon.



Bain Double Box Farm Wagon.



Bain Hay or Stock Wagon.

Bain Wagons are made to carry all kinds of loads on all kinds of roads, and they do it. They have stood the test of time and the most severe usage—in heavy teaming, in logging camps, with the army in the field, on farms all over the Dominion, in brick yards and coal yards, in fact, wherever wagons are used. Though, of necessity, somewhat higher in price than some others, they are the cheapest in the long run. Three things are absolutely essential to the making of a good Wagon—good material, experience and proper facilities

Only one way can a manufacturer be sure of a reliable supply of good, dry material—by having it cut at the proper time and then caring for it until it is seasoned. It is impossible to buy so-called “dry” lumber and depend upon it being fit for the purpose. Lumber must be carried for from two to four years—or dried by

CANADIAN COAT OF ARMS.

The Canadian Coat of Arms makes an interesting study, and the various emblems have a direct bearing on the history of the provinces they represent. (see following pages and colored insert at centre of book).

A comparison of the Armorial Bearings of the Dominion of Canada at Confederation, and as now used, will bring vividly to mind the many changes that have taken place in the make-up of the Dominion since that date. At that time the emblems of the provinces were united to form the Arms of the country as a whole. In the upper half appear Ontario on the left and Quebec on the right.

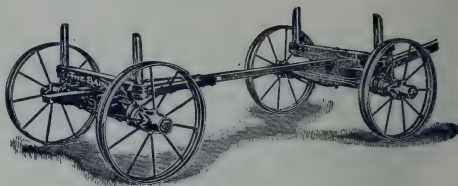




Bain Wagons, Etc.

artificial means, which always injures hard wood. All hard wood in seasoning forms a hard shell or skin on the outside, and every time this is dressed off the timber will shrink a little and form another shell; therefore, we prepare every part of the Gear ready to put together and iron, then give it a good coat of boiled oil and store from three to six months before ironing.

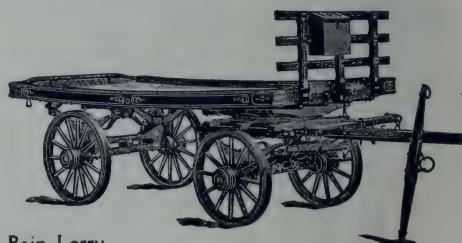
Wagon building is an art, and to enable the manufacturer to do good work, a thorough knowledge of the art in all its branches is necessary, much of which can only be gained by experience. Unless material is thoroughly seasoned and scientifically put together there will be constant complaints of checked Hubs, loose Spokes, loose Tire and Hub Bands, loose Skeins, etc. Unless he understands the proper taper for the Spindle, the way to set the Axle, how much "gather" to give the Spindle, and how much to dish the



Bain Handy Wagon.



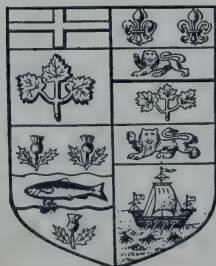
Bain Fruit and Baggage Wagon.



Bain Lorry.



Bain Dump Wagon.

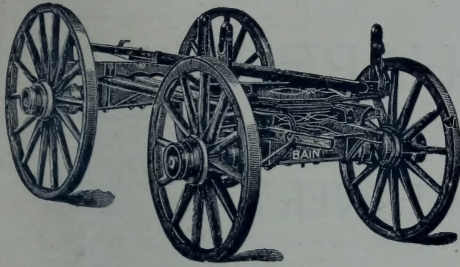


DOMINION ARMS, 1867.

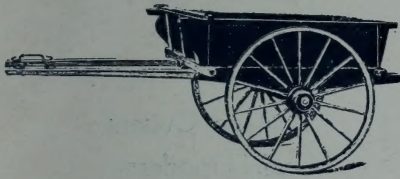
The base is occupied by the device of Nova Scotia on the left and New Brunswick on the right. Since that time five provinces have been added at different times, Manitoba in 1870, British Columbia in 1871, Prince Edward Island in 1873, and Alberta and Saskatchewan in 1906.

The various emblems chosen by each province to appear on its shield are typical of that province, and one who knows anything of the history and circumstances of each could not make many errors in picking them out. Notice the sunset on the design of British Columbia—farthest west,—Alberta's foothills and prairie; New Brunswick's marine view. Saskatchewan shows the wheat which

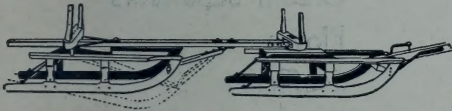
Bain Wagons, Etc.



Bain Heavy Teaming Gear.



Bain Dump Cart.



Bain Improved Ontario Two-Kneed Sleigh.



Bain North Shore Sloop Sleigh.



The Bain Improved One-Beam Bob Sleigh.

Wheels, he will produce a hard-running Wagon, because the Wheels will grind on collar or nut instead of playing easily between them and not grinding on either.

The founders of the Bain Wagon Co., have devoted their entire time for over thirty years to the building of Wagons, and during the past eighteen years have had control of one of the largest and best equipped factories in the country, and an abundance of capital, and it has been their ambition to produce the best Wagon made. The result is a line of Wagons and Sleighs that are recognized all over the Dominion as the most perfect of their class. No other concern in the Dominion has an equal record.

Bain Wagons, Sleighs, Dump Wagons, Dump Carts, Lorries, Boxes, etc., are described in the Bain Catalogue, free on request.

Bain Goods are sold by
Massey-Harris Agents Everywhere.

was instrumental in changing it from a territory to a province, and Manitoba keeps on her arms the buffalo as a memory of past days when the mighty animals roamed her prairies. Some of them mark the desire not to forget the land from which the first settlers came, and all keep well to the front the thought of the empire to which they still belong, indicating it by the lion or St. George's cross. Nova Scotia—New Scotland—still clings to the land of the heather and shows the Scotch thistle in token thereof. The fleur-de-lys on old Quebec reminds the habitant of sunny France, the home of his people in the long ago, as the lion rampant is a symbol of the land to which he now pays willing allegiance.



PRESENT DOMINION ARMS.

19

The MASSEY-HARRIS Line of HIGH-GRADE FARM MACHINERY

Grain Binders

Reapers

Corn Harvesters

Mowers

Rakes

Side Delivery Rakes

Tedders

Hay Loaders

Spring-Tooth Cultivators

Stiff-Tooth Cultivators

Corn Cultivators

Seeders

Hoe Drills

Shoe Drills

Disc Drills

Fertilizer Drills

Fertilizer Sowers

Disc Harrows

Drag Harrows

Harrow Carts

Feed Cutters

Pulpers

Ensilage Cutters

Grain Grinders

Manure Spreaders

Cream Separators

Plows

Scufflers

Land Rollers

Packers

Potato Diggers

Wagons

Dump Carts

Sleighs

Gasoline Engines

Spray Outfits

Saw Outfits

Direct-Connected Pumps



GOOD IMPLEMENTS
FOR GOOD FARMING



